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Original Articles

SOME PHENOMENA OF TUBERCULOSIS INFECTION.*

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The study of tuberculosis is a many-sided proposition. It is not my purpose now to attempt a full résumé of the subject or to discuss at length any of its more important features, but rather to make certain suggestions which have been the outgrowth of daily contact with victims of this most interesting and universal disease. I omit statistics—encouraging as they are—or detailed description of the methods of limitation and plans of organizations which have already been so effective. My thought is to discuss some of the phenomena of tuberculous infection and possibly to make a few therapeutic suggestions as legitimate deductions.

THE BACILLUS.

Naturally, the bacillus is the central point in most of the experiments and investigations concerning tuberculosis. To some it might seem that almost two decades of study had sufficed to learn all that is to be known of this organism, yet, I believe that we are only in the beginning of our lesson and that so far as specific antagonism is concerned we await the dawn. That the dawn is near at hand there is every promise, even without the final victory. In Germany in 1890, the death rate per 10,000 of population was 28.11 and in 1902 it was 19.04. In Great Britain the death rate has been reduced to 50 per cent. and in some of our Eastern cities almost as much. A recent report shows that in less than two decades there has been a decline of 50 per cent mortality.[1]

It is with new courage then that we study some of the characteristics of tuberculosis and, though the presentations may seem disconnected, there is in them as presented an interdependency that may not be ignored. In regard to the bacillus itself, we need not do more than mention the different ways of conveyance, as in dust, in globules of expectorated mucus, by food or by flies, as shown by Lord[2] a year ago. The vitality of the bacillus has been the subject of many experiments. Twitchell[3] found that dried tuberculous sputum in a handkerchief, woolen blanket or on wood when innoculated, would produce a tuberculous lesion after 70 days. Koch[4] dried sputum at laboratory temperature for from four to eight weeks and found that it would produce tuberculosis in animals. Sawinsky, as quoted by Twitchell, found that sputum subjected to the ordinary conditions of the floor of a dwelling house preserved its virulence for over 2 months. Flock[5] says "Consumption may well be termed a house disease. The house is the place where the tubercle bacillus lies dormant in wait for its new host; it is the place where the new host gets his implanation." While it is true that sunlight and air currents and heat extremes limit the life of the bacillus, yet it may be well to remember that under conditions not infrequent such longevity is possible.

A second observation is that the number of bacilli is not indicative of the stage of progress. At Mount St. Rose, we divide our cases into three classes, according to the evidence from physical examination. The three clinical stages are those usually given in the books. The divisions from the microscopic showing are these: one bacillus in a field, or only one found in several fields, is written down in first class; several in a field, as second class; an average of six places, the case in the third class; from six to ten, in the fourth; and a larger number or "clump" of bacilli, places it in class five or five plus. Now it often happens that patients in the first or early stage clinically, are in class five or even in five plus from the bacteriologic tests. Conversely, though this is more rare, advanced cases may show few bacilli. An interesting case is that of a soldier at Jefferson Barracks.[6] Although in the most advanced condition by every test, except that of the microscope, there has never been a bacillus found after repeated examinations, by Major Banister, in charge of the post, or by his assistants. It frequently happens that a great variation in the number of bacilli is found in the same patient at different times, without any physical evidence of change. Hence, I am of the present opinion, that while as a diagnostic evidence the bacillus of tuberculosis is valuable, it does not aid in determining the stage or location of infection, or the prognosis as to time and result. In a recent report[7] by Drs. Ravenel and Irwin, three sterile cases were found among thirty, in which the contents of lung cavities were examined. The absence of bacilli in the early or closed stage will be referred to in speaking of early signs.

ROUTES OF INVASION.

The routes of invasion are worthy of continued investigation. At present the respiratory tract is by many considered the main channel, but with a larger opportunity for investigation than formerly, I am convinced that many more pulmonary cases are directly infected through the lymphatic and blood channels than are recognized by the average physician. The phenomena of invasion by the bronchial route have been studied not

* Read before the St. Louis Medical Society, April 7, 1906.

1. Report of the committee, Drs. Jackson, Otis and Locke, appointed by the Suffolk District Medical Society to investigate the progress of the crusade against tuberculosis in Boston, October, 1905.
2. Boston Med. and Surg. Jour., 1905.
3. Report first annual meeting National Association for Study and Prevention of Tuberculosis.
4. Bacteriology, Sternberg.
5. Med. News, Feb. 20, 1904.
6. Porter: Trans. National Assoc. for Study and Prevention of Tuberculosis, 1905.
7. Studies in Mixed Infection in Tuberculosis.

only clinically but in their pathologic sequence and to such an extent has this study served that it has, until recently, overshadowed the other scarcely less important questions of infection along the lymph channels, or around the arterioles and capillaries by the blood current.

Without dwelling on the bronchogenic development along the respiratory tract, which, to some extent, we have all followed, I would emphasize the value of infection through the lymph channels as a factor in the etiology of tuberculosis. Here again we find three methods by which the bacilli find their way into the lymphatics. First, it is asserted by Behring,[8] who quotes Roemer, that albuminous bodies may pass through the walls of the alimentary canal and into the blood and lymph unchanged in new-born animals but not in adults. Behring fed anthrax bacilli to adult guinea-pigs and these passed through the alimentary tract without doing harm, while eight-day old guinea-pigs similarly treated died quickly. Attenuated bacilli fed to young pigs were found in the blood. Ribbert[9] believes that most cases of pulmonary tuberculosis are hematogenous, and that the bacilli pass through the pulmonary tissue into the lymph channels and to the bronchial lymph glands. From this point they are carried by the blood stream to the lungs, usually to an apex, because of comparative local anemia and a retarded lymph flow which is due to hindered movement from ossification of the first rib.

A most important recent contribution to the study of lymphatic infection is a paper[10] presented to the Section on Laryngology at the fifty-fifth annual session of the American Medical Association by George B. Wood. After recording the results of his most interesting experiments made in the laboratory of the Pennsylvania Live Stock Sanitary Board and citing many authorities, he concludes: "The tonsillar tissue of the throat, because of its peculiar anatomic construction and of its topographic relations, is more liable to become infected by tuberculosis than any other part of the upper respiratory tract. In nearly all cases of advanced pulmonary phthisis the faucial tonsils become inoculated. In about 5 per cent. of hypertrophied pharyngeal tonsils some form of primary tuberculosis will be found. Primary infection of the faucial tonsil is a rarer condition."

Tuberculous adenitis in the cervical lymphatics develops in the majority of cases from infection originating sometimes in the faucial tonsils, but more frequently in the pharyngeal tonsil. The tubercle bacillus is probably unable to pass through the tonsil without having first overcome the vital resistance of the tonsillar tissue.

The danger of systemic or pulmonic infection resulting from a tuberculous lesion in the tonsillar tissues of the throat is about equal to that of tuberculosis of the cervical lymphatics. The lesion to be expected as a resultant infection from the broken-down glands of the neck is a miliary tuberculosis of the lungs. Further than this possibility, tuberculosis of the lymph glands of the neck is more dangerous than a localized tuberculous lesion in any other portion of the body.

As illustrating this proposition, I may briefly cite a case in the observation ward at Mount Rose:

Patient.—A woman, aged 40, had for many months prior to admission, tuberculous infiltration of the cervical glands of the right side. Bacilli were found in the broken-down structures, but consultation with several surgeons determined non-interference because of the extent and the tissues involved. At first there was neither physical nor microscopic evidence of tuberculosis involving the lung, though we made repeated and frequent examinations. Recently, well-marked signs have appeared in the apex, but the infected lung is evidently as yet in the "closed stage." No bacilli were found in the sputum, though I have little doubt but that they will be found.

The tonsils are more resistant to the action of bacterial toxins than ordinary lymphoid tissue. This latter proposition is also well set forth by Dr. Jonathan Wright,[11] and its soundness will be more readily admitted after reading Dr. Theobald Smith's[12] essay, "Some Problems in the Life History of Pathogenic Organisms."

Autoinfection.—This topic deserves more extended notice. I believe it to be one of the most important chapters in the study of the symptoms and care of tuberculosis. Let me briefly call to mind the fact that constipation (with intermittent diarrhea) is found in most cases of pulmonary tuberculosis. It has been shown that bacilli in the sputum may safely pass the impaired gastric secretions, travel the course of the small intestine, and be found in the fecal accumulation in the colon and rectum; or that they may pass into the deeper structures or lymph or blood channels through an uninjured mucosa. It is not a far cry to the conclusion that reabsorption of bacilli with the products of metabolism and decay from the intestinal tract is a potent addition to the primary infection, especially in children, as before quoted from Behrens and I am inclined to believe that the statement holds good with those of more mature age. That this is more than a hypothesis, can, I believe, be demonstrated. There is here a therapeutic suggestion which we try to make practical. In appropriate cases a high enema containing a small quantity of glycerin is given daily for a week. By that time the lower bowel is probably emptied of all scybalous masses. After that, the normal salt solution is used in quantities which can be retained. The exact form of treatment may vary, but the principle is kept in mind. The reduction of temperatures, and in many cases the improvement in assimilation following this part of the treatment certainly suggests cause and effect. The premises may be wrong but the conclusion is encouraging. The fact that other bacteria are factors in temperature increase in tuberculosis does not alter the deduction as to the value of the method.

Large Doses of Creosote are not Indicated.—Following the adoption of the suggestion last mentioned we have been willing to lessen greatly the amount of creosote and its substitutes. In fact, except with the idea of improvement of digestion and nutrition (and I confess my want of faith in this) the use of this class of remedies is almost forgotten in our treatment at Mount St. Rose, where we have had over 800 cases of tuberculosis in 3 1/3 years. Certainly, large doses of creosote, guaiacol, and their carbonates are not given. Here, again, I may be at variance with many of our best observers, but I predict that in another decade, very little, if any of this class of remedies will be used internally in the treatment of tuberculous cases.

EARLY SIGNS OF INFECTION.

One of the most valuable reports of the past twelve months is "The Report of the Committee on Early Diagnosis of Tuberculosis to the National Association for the Study and Preventation of Tuberculosis." This is a topic in itself, but lack of space permits me to mention only a few points. The committee lays great stress

8. Deut. med. Wochft., Sept. 24, 1903.
9. Deut. med. Wochft., April 24, 1902.
10. THE JOURNAL A. M. A., May 6, 1905, p. 1425.
11. Med. News, March 4, 1905.
12. Science, Dec. 16, 1904.

on symptoms and signs, indicating a tuberculous infection during the closed stage: i. e., before caseation and breaking down of a tubercle and the appearance of bacilli in the sputum. The symptoms are early, typical, repeated, though possibly slight hemorrhage, increased afternoon temperature and a hacking cough are suggestive but not positive proof.

More important are the early physical signs. Among these are a retardation in the movements over the affected lung portion and a diminution of the excursions of the diaphragm of the infected side shown by Litten's shadow. The use of the blue pencil to mark border line of dullness and points of asymmetry is strongly urged with the stethoscope. The very earliest auscultatory sound is a rough and slightly diminished respiratory murmur, not to be confounded with the sharp puerile murmur of increased function. The respiratory sound loses its smooth quality and (Sahli) becomes impure and roughened. This change is produced by slight inflammatory changes in the bronchioles, the air passing over an uneven surface and through a slightly narrowed tube. It precedes the crepitant râle and all other physical signs.

Of tuberculin, the *x*-ray, and the use of iodin salts to increase catarrhal symptoms, the committee says their value has not been demonstrated and a case will rarely be found in which they would add considerably to the information gained through other sources.

POSTERIOR LESIONS ARE MOST AGGRESSIVE.

Diminution of the percussion note, with harsh breathing and crepitation heard in the upper interscapular region, is suggestive of lymphatic infection and infiltration of the bronchial glands. The cases we have noted of this class run a much more rapid course than those in which the infection has been through the respiratory tract. It is true that the premise is hard to prove, but the fact remains that the cases most difficult to control have been those in which the physical evidence was most marked in the upper dorsal region. I would again urge that no chest examination is complete without most careful investigation of this region.

Extent of local lesion is not always a criterion of the general condition in pulmonary tuberculosis. This may be truthfully said of many diseases, but it is emphatically true, I believe, in pulmonary tuberculosis. We find it so in lobar pneumonia, which is also a specific disease. It is true, likewise, in many conditions of pus poisoning and local infection. It is no new proposition, therefore, but one that has not been given its full value in formulating our diagnosis and prognosis in this disease. An advanced pathologic stage is not incompatible with fairly good general conditions. Such cases, in spite of extensive tissue disintegration, may become chronic, the advance be checked, and the patient live out his expectancy.

In regard to the relation of pleurisy to tubercular pulmonary infection, where so many of recognized authority are at variance, no one man has a right to speak dogmatically. Nothnagel says: "Tuberculosis of the pleura is almost exceptionally secondary and is most frequently associated with tuberculosis of the lungs or bronchial glands." Von Ruck[13] deducts from forty writers and his own experience as follows:

1. The pleural cavities are readily accessible to bacterial invasion.

2. The great majority of pleurisies with effusion which occur in otherwise healthy individuals are due to infection by the tubercle bacillus. This is proved by autopsy findings, by methods of exact diagnosis, and by the subsequent clinical histories of the majority of persons who have been the subjects of such attacks.

3. There is ample evidence to indicate that the so-called idiopathic, dry pleurisies, are likewise usually tuberculous.

4. The subjective symptoms of inflammation of the pleural apices often simulate those of myalgia or rheumatism.

5. In every case of pleurisy, or of persistent pain in the chest or shoulder, which can not be satisfactorily ascribed to other causes, tuberculosis should be suspected and a careful physical examination should be instituted to determine, if possible, the existence of a tuberculous process in the lungs or elsewhere.

6. Even if physical examination in such cases proves negative, the patient should be regarded as tuberculous until the contrary is proved, and should at least be kept under prolonged observation and re-examined from time to time.

7. The application of these principles will often lead to an earlier recognition of tuberculous disease of the lungs, especially, and to the institution of treatment at a period which, in many cases, will secure to the patient most important advantages in his prospects for recovery.

In the face of such evidence it would be foolishness to raise a feeble negative. I know that I have seen cases of pleurisy with effusions that were not tuberculous and that never became tuberculous, but these may have been exceptions. With our present knowledge I should hesitate to say that the majority of cases of pleurisy become tuberculous and Bowditch, Hanford, Barr, Fiedler and others place the proportion as no greater than one-third. If, however, to this one-third we add the number of cases complicating old tuberculous lesions, it will make a high percentage, indeed, for the majority of tuberculosis cases have pleuritic extension and infection.

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13. New York Med. Jour., Sept. 30, 1905.

WAYS TO COMBAT EVIL.*

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NEW YORK CITY.

1. An authentic source of supply for facts concerning the evils complained of, is an absolute necessity.—No amount of mere abuse will end the "patent-medicine" swindle. The catalogue of crimes and abuses with which the "patent-medicine" man stands charged must be backed up before the public and before legislative committees by cold, hard facts. An abusive statement left unverified reacts against the cause of the enthusiast who makes it; neither will the collection of facts once made remain accurate. The "patent-medicine" man, smoked out of one swindle, plans and executes another, shifting his methods to suit the dangers of every situation. "And even in pennance planning sins anew." When the continuance of one swindler is made impossible by exposure, he falls by the wayside, but others rise to take his place. The ingenuity of crime has been commented on since the dawn of civilization. If "patent-medicine" swindles are to be permanently stopped, there must be an opposition gathering evidence as rapidly as it is made. Eternal vigilance is an essential element in the character of any effective opposition to the "patent-medicine" trust. Those who enlist in the fight should have some central source at which to apply for unvarnished facts, and there should be some central bureau to which every man finding proof of fraud could send the information

* Read before the Philadelphia Society of Medical Jurisprudence, March 19, 1906.

for the general welfare. What is true of "patent-medicine" men is true of quacks generally.

2. The facts once collected should be given widespread dissemination.—When the people are once informed of the true facts of the vile business, its source of revenue will be best attacked. No person will knowingly walk into the lion's mouth. The "patent-medicine" business exists only to make money. Stop the revenue and the fraud dries up of its own accord.

There are many ways in which can be conducted the work of educating the public through the dissemination of specific facts concerning the various "patent-medicine" crimes.

The most effective way is to secure the co-operation of societies already well organized, and particularly of those societies that are professional, philanthropic and religious. A few may be indicated as follows:

PROFESSIONAL SOCIETIES.

The medical profession, in order to add to its supply of knowledge, is given to organization for the purpose of disseminating scientific information. The national body, known as the American Medical Association, the Medical Society of the State (and County) of New York and the other organizations of medical men, even those in the smaller towns in the country, will beyond a doubt lend their aid to any well-organized movement to bring home to the American public a realization of its present degradation brought about by the "patent-medicine" evil and habit.

The influence of the medicolegal societies, such as the excellent Medicolegal Society of New York, must not be forgotten. They have already done some excellent work in exposing quackery, and will certainly lend their aid to further systematic work along broader lines.

Dr. Prince A. Morrow, president of the new society, entitled The Society for Sanitary and Moral Prophylaxis, says that in combating the social evil and the venereal peril this new organization will give every encouragement possible to the exposure of quacks and quack medicines that have done so much to break down the health of many young boys of America.

PHILANTHROPIC AND RELIGIOUS SOCIETIES.

One hardly knows where to begin in mentioning the list of public-spirited organizations of a philanthropic nature that would co-operate in this work of education. In every community there are great numbers of societies, composed of God-fearing men and women who would rejoice at the opportunity to uplift their fellowman and protect him against the avariciousness of the quack and "patent-medicine" charlatan. As typical of these organizations, mention may be made of the Women's Christian Temperance Union and the Young Men's Christian Association.

The W. C. T. U. has already done some substantial work along the educational lines suggested. They have valiantly fought to expose those so-called medicines that are nothing more or less than cheap whisky in disguise. The reason they have not done more lies in the fact that they have not the facilities of the specialist in unearthing the frauds, or in bringing the offenders to justice. The Y. M. C. A., with its well-equipped reading rooms and the excellent system of lectures to young men, could do a great deal toward spreading accurate knowledge of the dangers to young men who rely on the alluringly false advertisements of those medical frauds who make young men their especial prey.

Various Protestant denominations have their young people organized into societies of various kinds. These in turn affiliate with the young people of kindred denominations, and the influence of these combined societies is one of the great moral forces of the day. Could they do a better work than in assisting to uplift the "patent-medicine" drunkards, or in bringing home to themselves and to their friends the dangers lurking in the vile drugs so freely advertised in their daily papers? In this work, the influence of the Roman Catholic clergy, if properly enlisted, would be tremendous. More than once have I seen earnest priests at the meetings of professional societies, where some of the evils we have been enumerating were discussed, and if even a few of the dangers could be accurately stated and proved to them, I feel no hesitancy in saying that they would be the first to co-operate. The Jewish hospital societies, and the various Jewish charitable societies working among the Jews of the "East Side" in New York, only wait an organized movement to lend their aid to a work the importance of which to the tenement dweller can not be overestimated.

3. A counter attack should be made by subscribers on newspapers that accept advertisements of "patent-medicine" swindles.—Just as the "patent-medicine" man quits business when its revenue ceases, so will the newspaper cease to be the "patent-medicine" man's ally when people refuse to pollute their homes by bringing into them papers and magazines containing foul advertisements exploiting quacks and vicious remedies. A society of 100,000 members, stretching from coast to coast, each member of which refused to read newspapers and magazines containing improper medical advertisements, would mark the beginning of the end of the "criminal alliance between quacks and newspapers."

4. The text-books on physiology and hygiene in our schools should have some space devoted to the dangers of "patent medicines" and indiscriminate dosing.—It is difficult to overestimate the influence exerted against "King Alcohol" by the schools employing text-books on hygiene and physiology telling of the dangers of indulgence in alcohol. Let the work be carried to its legitimate end! Let these books give the analysis of scores of "patent medicines" containing dangerous amounts of alcohol and opiates. Let the untruths contained in false advertisements of such medicines be mercilessly exposed.

5. Evidence should be systematically laid before the postal authorities, showing that "patent-medicine" men and quacks generally are using the mails for fraudulent purposes.—If newspaper advertising, and false literature generally, is the life-blood of the "patent-medicine" business, the United States mail is the heart that sends the blood through veins and arteries. Let the society of 100,000 members demand a rigid enforcement of the laws against fraudulent use of the mails, and let the society, if necessary, supply the technical information in a few cases, and the government, which is your government and mine, will not always turn a deaf ear.

6. Penal laws in any way bearing on the evil should be enforced as systematically and thoroughly as possible.—The quack and "patent-medicine" man is not afraid of mere talk. He insolently refers to it as "hot air." But when the majesty of the law says his business is fraudulent and he a criminal, the mighty fabric of this billionaire business must eventually totter and fall. A society of 100,000 people helping to enforce these laws would not be long in putting them in motion.

7. Evidence of the far-reaching dangers of "patent-medicine" swindles should be systematically laid before our various state legislatures and persistent demands

made for such legislation as is necessary to abate the evil.—Already we have some valuable laws applying directly to these evils. But more are needed, and the need would long ago have been supplied if the "patent-medicine" man and the "patent-medicine" lobby had not blocked the way. These obstructions must be cleared by a society of 100,000 members, each one helping to do so.

PROPOSED SOCIETY FOR THE PRESERVATION OF THE PUBLIC HEALTH.

I happen to know that the many recent articles exposing the evils of "patent medicines" have been read with absorbing interest by "patent-medicine" conspirators. Naturally enough, they hope these exposures will end without any permanent remedy for the future.

As they have read the several recommendations for the abatement of the evil above set forth, it is not difficult to imagine these wealthy gentlemen saying to themselves: "If these forces could be practically put in motion our ill-gotten millions might be in danger. However, so long as the influences which might destroy us are not organized in their effort, and have no guiding hand, our wonderful 'patent-medicine' trust, backed by money and brains, can beat the public at every turn. The effect of a few exposures will soon be forgotten by the public with its proverbially short memory."

The truth of that comment no one is prepared to admit sooner than I. It is a comment, however, applicable in every fight against organized crime and entrenched evil. Abuses of every sort thrive for the most part because no one person or no one organization make it a duty to suppress them. For an elaboration of this theory see the writer's article in the October, 1904, *Forum*, entitled "Private Societies and the Enforcement of the Criminal Law." If an evil really exists, there are always forces for good powerful enough to destroy that abuse, provided those powers are unremittingly and diligently and honestly directed.

The "patent-medicine" evil has existed in this country more than in any other country, practically unmolested, save for the desultory attacks here and there by public-spirited people. Some few physicians in a small way have exposed the evil. Attention has here and there been called to it, and flagrant instances of the evil have come to the surface. Unlike most abuses in our national life, however, the "patent-medicine" criminal has the newspaper for an ally. Other abuses that must fall before organized public opinion, to a large extent aroused through the public press, are easier to overthrow than the "patent-medicine" evil. This evil thrives with the connivance of a large part of the press. If the "patent-medicine" man can not advertise, his business dries up and is blown away. Many newspapers in accepting his advertisements agree to suppress information detrimental to the vile business. The "patent-medicine" man bribes a large part of the press through money paid for advertising.

This element in the problem alone makes the suppression of the "patent-medicine" evil one of the most difficult questions now confronting the American people, but the evil can be suppressed, provided some organization with courage and ability, and money enough behind it, will make a business of suppressing it. The "patent-medicine" men are organized as well as an army, and to beat them their opponents must in turn have an organization complete and perfect and well equipped. After a great many years of thought devoted to the subject and a practical experience of over six years in enforcing the laws against quackery in the county of New York, I am of the opinion that the evil will never be suppressed until a society is formed charged with the duty of fighting quackery all along the line. This society could be the directing brain that could concentrate all the powers for good that can be used in the suppression of the "patent-medicine" man and quackery generally.

OUTLINED SCHEME OF ORGANIZATION.

Such a society could be formed along the following lines:

A charter should be applied for, either under the general corporation laws of the State of New York or by special act of the legislature. New York is suggested as the most advisable state because the fight against quackery has been conducted here more systematically than in any other state in the Union, and because the opponents of quackery can be better organized from New York than from any other point in the United States. A charter from Congress would possess some advantages not obtained by incorporation in a single state.

This society should have the necessary number of officers, and care should be taken to place in offices requiring active work only those men who will go on the firing line. The honorary offices should be distributed to public-spirited men, whose names alone will strike terror to the opposition. Rich spies of the "patent-medicine" trust must be detected and denied a place in the councils of the new society.

Certain standing committees must be provided for in the organization of the proposed society. One committee, for instance, should be charged with the duty of advocating and encouraging all legislation directed against frauds in "patent medicines." This committee should meet the well-organized lobby of the "patent-medicine" trust in every legislature of the United States, and with the facts at its disposal expose the evils of "patent medicines" in our legislatures, and at the same time bring public sentiment to bear in every state where the battle for reform is waged.

Another committee should have charge of the distribution of literature and the dissemination of information placed at its disposal by another committee whose duty it will be to collect it. The services of an expert analytical chemist must at all times be at the disposal of this committee.

Another committee, composed entirely of medical experts, will supply the necessary expert testimony, either at public hearings or in the prosecution of criminals, in the courts of law or in the form of written articles and lectures.

Another committee will have charge of the enforcement of the criminal laws now on the statute books, and so on, until each one of the forces for good mentioned above is being supervised and guided by an intelligent committee charged with the power and interested in the work.

Such a society will naturally become the proper source of authoritative information on the abuses of "patent medicine" and quackery, and the agents and investigators of such a society will be always at work gathering information, systematizing it, indexing it and making it generally available for the committees charged with the use and dissemination of this information.

MEMBERSHIP OF THE PROPOSED SOCIETY.

A mistaken idea prevails in many quarters in regard to the duty of the medical profession in suppressing "patent medicines" and quackery. Many think that physicians band themselves together to fight this evil for selfish reasons, failing to realize that the physician

profits much more than he loses by the indiscriminate practice of men with no knowledge of medicine. Sooner or later the victims of the quack and of the "patent-medicine" man must fall into the hands of the skilled physician, whereas, if they were treated by him in the first instance, their health might have been preserved with but little effort.

The physician has led the way in this work because of his public-spirited interest in it. The physician, more than anyone else in the community, realizes the dangers of quackery, and he has tried to suppress it because as a physician he feels it his duty to relieve suffering wherever he could. But the physician can not fight the evil single handed. The physician has been fighting our battle, the battle of the public, for an hundred years and more, and it is time for the public to rally to the support of the common cause.

Medical men would no doubt take a leading part in the activities of the proposed society for the preservation of the public health, but they should not be expected to do it all. At least 50 per cent. of the membership in the proposed society should be laymen of influence and standing in the community.

FINANCIAL SUPPORT.

One more vital point in connection with the proposed society remains to be discussed. The "patent-medicine" man makes his money by millions, and he is a liberal spender when it comes to protecting his interests and extending the fields of his activities. These men employ skilled counsel, they have shrewd agents working in their behalf, they have immense financial resources, and they have a well-organized lobby. To be sure, they have not right and the public interest on their side, but they have everything else for the accomplishment of their purpose.

The society to oppose them must have financial backing strong enough to make its work effective. The proposed society might have several classes of members. The ordinary annual member to become such by contributing $5. A life member to become such by contributing $100, and an honorary life member by contributing $500.

It has become too much the fashion nowadays for people to expect donations and endowments from the public-spirited millionaires of America. Many people seem to think that all one has to do to get money from these men is to request it for any cause that seems to them to be good. They forget that most of these public-spirited men of wealth carefully investigate applications to their bounty, and are careful to aid only the most deserving causes. It is my belief that those gentlemen who, by their benefactions in the past, have shown an interest in the spread of medical science, in the spread of education and in the upbuilding and uplifting of human life and the purity of the American home, if they understand the plan and scope of the society for the preservation of the public health and are convinced that it is in responsible hands, will rally to its support to whatever extent it becomes necessary.

But something more than money is needed by the new society. If its influence is to be felt throughout the United States, it must have a large membership. The moral force that comes from an organization of thousands of public-spirited men and women engaged in a good cause, must be one of the chief assets of the new society.

To that end, people in every state and nation, who are interested in the work, would become charter members of the new society.

When the work of the Society for the Preservation of the Public Health becomes a reality, and it enters into the discharge of its herculean task, every member of it can feel that he or she is taking an active part in the suppression of an evil which, if permitted to spread much further, would strike at the vitals of our national character. And the proposed society must come sooner or later. It is a necessity. The only question is who will launch it, and when? Will the American Medical Association seize the present psychological moment and begin the formation of this life-saving society?

No claim of originality is made for the following indictment of crimes laid at the door of the "patent-medicine" men and quacks. No attempt is made to set forth the facts from which the generalizations have been deducted. For the most part, the indictment consists of mere condensed statements of the fact hitherto set forth in minute detail in lay periodicals and elsewhere. But in order that we may have clearly in mind the dangerous nature of these many crimes, a brief review of them will tend to emphasize the evils of the situation.

THE INDICTMENT AGAINST "PATENT-MEDICINE" MANUFACTURERS, QUACK DOCTORS, AND NEWSPAPERS IN LEAGUE WITH BOTH.

First.—Many drunkards and drug fiends date their downfall from the first dose of "patent-medicine." The most "popular" "patent medicines" contain dangerous drugs, alcohol, and narcotics, to such an extent that their continued use has made drunkards and opium fiends of hundreds of victims. Chemical analysis by the best chemists in the world have exposed over and over again the vicious nature of these leading "patent medicines." Often innocent children are made drunkards, or else killed outright, by cough mixtures and emulsions containing large amounts of alcohol and opiates.

Second.—The "patent-medicine" man preys on womankind. One of the leading "patent-medicine" manufacturers has expressed this well-known principle of the "patent-medicine" business in language better than any outsider could do it. His words were:

> "It's the women we are after. We have buncoed them now for a good many years, and so long as they remain as 'easy' as they have been and we can make them believe they are sick we're all right. Give us the women every time."

Third.—Women's letters, instead of being kept "sacredly confidential" by the "patent-medicine" shark, are publicly exploited. The "patent-medicine" shark advertises to treat letters received from women as "sacredly confidential," and to permit no one save an honorable physician, generally mentioned by name, to read them. As a matter of fact, letters from women, laying bare their most confidential and sacred secrets, sometimes telling of the disgrace of a daughter, are opened by prying clerks and passed for reading from hand to hand through the receiving office, and if particularly racy, are shown others outside the business. "Then to cap the climax of iniquity, with some of these houses, these names and addresses, and even the letters themselves, are sold at two, three or five cents a name to firms in other lines of business for the purpose of sending circulars."

Fourth.—Quacks exploit, as a rule, poor people. The largest source of revenue for the "patent-medicine" man is from the pockets of the poor. Many people, after reading the alluring advertisements of the "patent-medicine" man, come to the conclusion that by taking the advertised remedy they can cure themselves and save the bill of a physician. They argue that if they can be cured by using one or two bottles, it will be cheaper than going to a doctor. This science of economy on the part of the poor is responsible for some of the ease with which the "patent-medicine" man amasses his fortune.

Fifth.—Most "patent medicine" testimonials are secured by fraud. "Patent-medicine" men generally advertise so-called "testimonials" in the form of letters from alleged patients who paint the curative powers of the remedy in false and alluring colors. A great majority of these testimonials are miserable frauds. In some instances men and women are deliberately paid to make false statements. Other testimonials are

manufactured in the laboratory like the medicines themselves, by the wholesale, and still others are exacted in advance of treatment from poor patients, who gives these false testimonials in exchange for a few bottles of worthless medicines. Before giving newspapers contracts for advertising, some concerns require the newspapers to secure testimonials in advance.

Sixth.—"Patent-medicine" men try to "make business" by causing disease. Instead of trying to heal the sick "patent-medicine" men endeavor to "make business" by so framing their advertisements as to induce the reader to believe that he has one or more well-defined symptoms of a dangerous disease. The men employed to write these advertisements are known in the "patent-medicine" business as "hypo creators," because, by running the whole gamut of simple symptoms from "headache" to "chills down the spine," they are supposed to create hypochondriacs who will buy the drug which the advertisement guarantees will cure the disease the reader thinks he has. This is also a favorite method of deception practiced by the advertising quack doctor, especially one who advertises to cure diseases of men only.

Seventh.—No knowledge of medicine necessary in "patent-medicine" business. The chief "patent-medicine" industries of the country are enormous business institutions, the details of which in every department are conducted by laymen absolutely ignorant of the science of medicine. The scientific knowledge of the healing art is in no sense considered a requisite to the successful carrying on of the "patent-medicine" business. A good sense for advertising and a conscience that does not stick at personal enrichment filched from hoards of ignorant, suffering victims, are the qualities that bring success in that business.

Eighth.—The "patent-medicine" shark hides behind a "secret preparation." People who taken "patent medicines" are taking concoctions the ingredients of which the manufacturers fear to make known. By refusing to make public his so-called "invaluable" remedy, we are forced to conclude his drug is either worthless or dangerous, and that therefore he fears to have his dupes and victims know the true ingredients thereof. If the remedy be valuable, then he violates the honor of the medical profession, whose first rule is that all discoveries in the healing art are for the benefit of humanity, without individual profit or control, by governmental patent or secret methods. Every effort to compel the printing of "patent-medicine" formulas on labels has met with the determined opposition of the "patent-medicine" trust. The reason is obvious.

Ninth.—The "patent-medicine" man substitutes impure and adulterated drugs for pure drugs. In order to reduce the cost of his vile stuff to a minimum the fraudulent substitution of drugs is practiced by the "patent-medicine" man, e. g., wood alcohol is substituted for pure alcohol, and poisonous acids for cherry bark. There is no government inspection of any kind in this nefarious business.

Tenth.—The "patent-medicine" man disregards dangerous conditions and always recommends his particular remedy, knowing that it may be worthless or dangerous. The "patent-medicine" man willingly undertakes to cure the most dangerous diseases without any opportunity for a personal examination and diagnosis of the patient. The patient may be in a dangerous condition, but that is no business of the "patent-medicine" man. His object is to sell his remedy. He will, therefore, prescribe his "cure-all" to every applicant without discrimination, in spite of the fact that such methods bring about the deaths of thousands of victims and are universally condemned by scientists everywhere.

Eleventh.—Patients, by false analyses, are frightened into believing they are dangerously ill. The "patent-medicine" man urges his victim when he first catches him, to send in samples of urine, blood, and some other secretion of the body for inspection and analysis, on the pretense that the disease may be more accurately diagnosed. As a matter of fact, thousands of these samples may be received in a day. They are either thrown away as fast as received, or perfectly natural chemical changes and reactions are misinterpreted so as to cause the victim to believe he has a disease demanding the "infallible" remedy made by the "patent-medicine" exploiter.

Twelfth.—The "patent-medicine" man deliberately makes false claims to the curative powers and to the universal applicability of his drug. If the "patent medicine" be of value in the treatment of disease, its scope, as the scope of any one medicinal remedy, must necessarily be very limited in its efficiency and restricted to comparatively few ailments. Yet the unscrupulous owners and exploiters of "patent medicines" rarely hesitate to assure the public that their remedies are of extraordinary efficacy and will cure the most stubborn cases without fail. Material representations in the sale of a horse or a mine or a watch are often punished as "larceny by a false pretense." Why should the taking of health and money from ignorant or susceptible people by the false pretenses advanced by the "patent-medicine" swindler be called by terms less harsh, or punished by sentences less severe?

Thirteenth.—The "patent-medicine" man exploits the personal skill of a physician who is generally an imaginary person. Many of the most widely-known "patent medicines" are supposed to be controlled, either by some benevolent woman (like Lydia Pinkham, dead these twenty years), or by some celebrated physician (like Dr. Wallace Hadley of the Force of Life Chemical Company). The "benevolent" woman or the "skillful" doctor, as a matter of fact, is generally either a myth or some insignificant individual whose fame is confined to the statements made in false advertisements. These words of praise of the great "physician" may be compared to bird lime skilfully spread to catch unsuspecting birds.

Fourteenth.—The "patent-medicine" men have a strong organization to protect themselves against hostile legislation of every sort. The manufacturers of "patent medicine" have an organization representing thirty-five states in the union. This organization looks after their interests generally, but its chief function is in regard to legislation. The legislative committee consists of thirty-seven members, being several times larger than any other committee of the organization. The object of that committee is to watch national and state legislation which may affect the business interest of members, and to take such action with reference thereto as occasion may require.

The report of this committee from year to year recalls the progress of legislation in every state hostile to "patent-medicine" men and the success of this organization in combating it. The public will have to fight this organization every step of the way in its effort to free the country from the "patent medicine" evil.

Fifteenth.—Quacks make a false diagnosis of loathsome diseases. Quacks, especially those in large cities, who advertise to cure diseases of men only, have a favorite method of diagnosing a simple trouble as a vile and loathsome disease, thus frightening the patient into paying them exorbitant sums for a cure. L. R. Williams and William H. Hale and Henry H. Kane, recently run out of business by the Medical Society of the County of New York, are fair samples of this miserable type of man.

Sixteenth.—The "patent-medicine" evil could not thrive without the active support of a large part of the public press. The responsibility of the newspaper was recently expressed by a resolution passed by the Medical Society of the County of New York, reciting, among other things, as follows:

> In the courts of honor, conscience and morals, if not in the courts of law, the newspaper that profits by the publication of the alluringly false advertisements of notorious quacks and charlatans, whose filthy advertisements can be found in prominent places in the advertising columns of certain New York papers, are in no wise less guilty than these charlatans themselves.

DISCUSSION.

DR. SAMUEL G. DIXON.—When I was invited here this evening to hear Mr. Andrews on "Forensic Medicine," I had no idea of opening the discussion, and I feel much embarrassed, for while I believe that "quackery" kills a large proportion of those who meet with a premature death, I have never given any thought to the remedy to overcome this great evil. However, since I learned that I would open the discussion, and knowing that I would hear such an able and comprehensive treatment of the subject, I have recalled some thoughts that have occurred to me from time to time. Once, when glancing through "Pepys' Diary," I saw a remedy for burns which ran somewhat like this: "There came three angels out of the East. The one brought fire, the other brought frost. Out fire; in frost, in the name of the Father, Son and Holy Ghost. Amen." At the

time I passed it by as an example of a superstition of the past. Last summer, however, when there was an explosion of typhoid fever at Nanticoke which promised to be more killing than that at Plymouth, and every possible means was being pushed to eradicate the original infection, and a systematic effort was being made to teach the people to boil all water that for any purpose would be taken internally, circulars in different languages were sent to each house, placards were posted on the telegraph posts, and corps of nurses visited from house to house to teach that boiled water would, in all probability, prevent infection in new centers. These nurses were met with the declaration from many, "No, we will take no care of the fever, as it is a visitation from the Almighty God on the people of the earth for permitting the sinking of the Russian war vessels." Such ignorance and superstition being the foundation stones of quackery made me realize the necessity of instructing the people before we can expect to overcome charlatanism. This in a measure can be done through the newspapers which are read before almost every fireside in this great commonwealth. For instance, the free distribution of antitoxin has brought very wide results, and from inquiry from the overseers on the farms I find that the sale of antitoxin, outside of that distributed by the state, has increased between 25 and 30 per cent. The work that has been pushed during the last six months in every township in Pennsylvania to prevent and to overcome smallpox has revealed much ignorance. One physician in Johnstown persisted in circulating vile literature against vaccination, and at the same time guaranteed to prevent smallpox with a remedy of his own to be taken internally. I ran this down and found that he was a graduate of one of the regular medical schools of this state, and that he held a license from the commonwealth to practice medicine. If a lawyer trifled with the affairs of his clients as that physician was trifling with the lives of the people, he would be debarred from practicing law. Yet, the present laws of Pennsylvania permit such quacks to go on practicing medicine under the official license bearing the seal of the state. He may have been convicted of malpractice, and yet go about flaunting a state license in our faces while he continues with his malicious pursuit. It is time, therefore, that we band together and prepare a bill to be presented to the next legislature empowering the State Medical Examining Board to revoke medical licenses when it is proved that they have fallen into the hands of charlatans and quacks. Entrusted as we are with the health and lives of the people, let us take as much pride in having a high standard of honesty, honor and intelligence in our profession as do the lawyers who safeguard the honor and property of the community. So much should we do in the way of our profession. Some years ago I stopped in a restaurant when a colored lad I had known since he was a child came up to wait on me looking thin and weak. I asked what had affected his former good health. His answer was: "Oh, Doctor, I guess it is all up wid Henry. I can't eat nothen, an' I am getten thin and weak and has a bad cough in the mornings. I guess Henry done and got consumptions." On inquiring I learned that he had his usual good health until a few weeks previous when he had contracted a cough and at once purchased a bottle of "cough expectorant," the label of which professed to teach him how to diagnose his own case and how to regulate the dosage. He had been religiously following the instructions, with the result I have mentioned. It goes without saying that a discontinuance of the quack remedy permitted Nature to reassert herself and permitted the poor fellow to take a new lease on life. Relating this simple experience to some of our lawmakers brought out from them several incidents of the same character and the declaration that the law should forbid the sale of such quack medicine accompanied by instructions for diagnosing. The time is right here when we should pass a law forbidding the sale of any quack medicine, when such stuff is sold as a cure for human ills, and this law should provide that such medicines should bear a printed label setting forth the full detailed formula of its composition, and a violation of the law requiring such labeling should be treated as a penal offense. I have spoken of this a good deal during the past year; I have talked with a number of senators and representatives, and with the governor. The governor and a number of the senators are in sympathy with such a measure and have already expressed themselves as being willing to help us pass this law, or rather to pass a law which will enable us to revoke medical licenses in the hands of unworthy holders. A majority are ready to pass a law forbidding the sale of "patent medicines" unless the detailed formula is affixed to the package. I say this tonight because I have been waiting for an opportunity when I could see my medical brethren and tell them what good things are in store for them at the state capitol. The men there are now ready to work with us and we have only to organize and prepare to push forward next year, when I think without doubt we can accomplish these two objects. In reading the card announcing the able address which has just been delivered, I notice the names of those whom I know have given this subject much profound thought; therefore, I cannot conscientiously take up more time from those who must have clear-cut ideas regarding the best methods to overcome one of the greatest and most rapidly growing evils of the day.

DR. ROBERTS.—I have very little to say on the direct subject of this address, but have jotted down a few notes which seem to me to be pertinent to it. I do not believe the "patent-medicine" evil and the quackery evil are entirely diseases of the community, but they are, to a certain extent, affections of the medical profession. The ease with which the public is duped by those whom intelligent men in general call "quacks," is partly due to quackish men in our own professional ranks. The essence of quackery is a boastful assertion of skill and infallibility, coupled with a strong desire to make money out of men's ill-health. The essence of medicine is a humble devotion to science and a burning wish to alleviate human suffering. Not all physicians are impelled by the motives which medicine demands of her followers. The sick often seek the advertising doctor and believe the false assertions of the "patent-medicine" label because they have found the medical practitioners with whom they have come in contact so incapable, so inefficient, or so exhorbitant in fees that help seemed impossible at their hands. The family which can obtain—near its home—efficient medical aid for a moderate fee, does not often drift into the hands of the recognized quacks. The college which graduates an ignoramus, the state examining boards that give a license to an unfit applicant, and the physician who places an unjust value on his services, or who deceives his confiding patient, are potent forces in encouraging quackery. Some years ago the alumni of various medical schools were obliged to compel their almæ maters to stop the output of half-trained graduates, and the profession has at times had need to be on the alert that medical examining boards did not permit improper men to obtain licenses to practice. These sources of supply of quasi-physicians have now been pretty effectually and satisfactorily checked. There remain, however, the secret-remedy prescribers, the commission-paying consultants, and the big-fee doctors to be disciplined by the medical profession itself. When these quackish colleagues have been ostracized a great deal will have been accomplished in the crusade to suppress quackery.

DR. BEATES.—I will make a few brief statements of some of the difficulties against which our profession contends, and as I have had opportunity of viewing them. First, it may be well to elaborate more fully a point raised by the last speaker wherein he refers to certain classes or types of practitioners who, because of their methods, form one of the most potent factors in establishing conditions favorable to the thriving of quackery. Reference is made to the professorial element of the commercial medical college, which is operative for the following reasons: A professor is regarded by the public as a paragon of medical knowledge and skill, and his fiat in matters of public questions, as well as of professional skill, is obeyed with a blind trust and confidence truly surprising. Now, quacks, if apprehended in this commonwealth, and convicted of illegal practice, are simply subjected, because of the Act of Assembly, a relatively weak law, to a mere fine. As we have seen from the speaker tonight, the "gullibility" of the public is such that these quacks receive fabulously large remuneration for their evil practices; therefore, these fines are paid, and within twenty-four hours the quacks are at their nefarious work again, presuming, and ofttimes well founded in so doing, that the annoyance and delay and expense attaching to prosecution will render them secure from repeated arrest. If, therefore, the Act of Assembly could be so amended as to impose

imprisonment in addition to fine, one or both, to be meted out by the courts, quackery could, in a large measure, be controlled. In the efforts in this state to amend the practice act, it was attempted, in addition to standardizing preliminary education on a higher plane, as well as determining the conference of the degree on a full four years' medical college course, to incorporate a punitive clause which would add imprisonment to the above mentioned fines. Unfortunately, the successful opposition of the class of practitioner above referred to —the professor of the commercial and low-standard medical school—swept away this measure with the higher standard provisos, and, therefore, quacks, in this state, have nothing to fear for the present but a small fine. Quackery, unfortunately, prevails among the unprincipled practitioners of medicine who are licentiates. They lack in principle and character, and advertise all sorts of methods for curing this and that disease, and because of possessing a diploma or license, or both, are the better able to make dupes of the community. It would be well, therefore, for every Act of Assembly throughout the country to have amendments providing for revocation of licenses for this and other forms of evil. In this state, a few years ago, when amendments had been framed which would have enabled the Act of Assembly to be so administered as to correct the indicated evils, the commercial medical schools actually contributed money to a political campaign fund, and the unprincipled political party leaders were induced to promise the defeat of the bill, because these colleges laid claim to the fact that, if the standards were raised, as the measure provided for, they would lose students and money and suffer financial disaster. The correction of this sort of thing lies in the hands of the rank and file of the medical profession, who, if they would stand shoulder to shoulder in forming a substantial organization, could, as should be done, sweep out of existence the boards of trustees and faculties of such concerns as are guilty of this truly horrible crime. Dr. Roberts says that colleges that send out illiterate and unfit practitioners are potent forces in the favoring of quackery. Certain it is that illiterate and incompetent practitioners are equaled in the results of their treatment of disease by any class of like ignoramus who claims this or that quack method as a means of curing disease, and it is self evident that, as these illiterate graduates are so numerous, many people obtain about as good results from the quacks as they do from those they believe to be qualified physicians; the only difference is that the quack obtains thousands of dollars for his evil practices where the physician receives but a few pennies. He also speaks of the improved condition of medical education, which is gradually diminishing this factor in the evil, and, while there has, undoubtedly, been truly marvelous advances in higher medical education, the profession should know that there are colleges even in Pennsylvania today that are graduating men concerning whom the following gives you a correct idea: From a college that was very active in defeating medical legislation, having for its end the establishment of proper medical education, as late as June, 1905, graduated, among many others, a man of this type. At the session of the examining board this question was asked: "Explain how intracranial venous pressure and auricular filling of the heart are affected by respiration." The answer given was this: "Because the respiration are not deep enough, or which does not allow enough air to get to the blood, of course we only want the heart to fill with blood when needed, if fill to rapid will cause enlargement of all portion which we did not need, because dead will overtake us, so therefore respiration regular, the amount, quantity and quality of blood to be forced through the ventricles, if that was not true the intracranial venous pressure, etc., would be affected and cause congestion, convulsion & headache therefore we will know the respiration is the fault." I desire to say seriously that I am not exaggerating when I say that 20 per cent. of the graduates of 1905 were of this type of illiteracy, and necessarily proportionately incompetent. The necessary correction for this is self-evident.

The next point, and one which has been well emphasized by Mr. Andrews is that it is useless for one or two individuals alone to try to prosecute quackery. A conviction here and there is absolutely strictly local and does not effect the root of the evil. The medical profession must undergo organization, and one of the things that we have to do to-day, as members of this commonwealth, is to use our influence as individuals to effect on a well elaborated basis a complete organization.

Another matter which is a great obstacle in the successful prosecution of illegal practitioners or quacks is the want of a legal definition of what constitutes the practice of medicine. Courts have decided that the treatment of disease by any means without the use of medicine is not the practice of medicine. A more senseless and absurd fact, not a matter of law, but a fact could not well be imagined. The treatment of disease, deformity or injury, no matter by what means, is the practice of medicine.

In the *Public Ledger* of Philadelphia, on Feb. 7, 1906, a paper which I believe should be credited with having done much to educate the public to a realizing sense of the importance of the medical profession from an economic point of view, appeared an editorial entitled, "The Practice of Medicine," and also the following definition, which is judical, and should, therefore, be a precedent guiding all judges in charging juries when actions of this type are under consideration,—

"The practice of medicine is the exercise or performance of any act, by or through the use of any thing or matter, or by things done, given or applied, whether with or without the use of drugs or medicine, and whether with or without fee therefor, by a person holding himself or herself out as able to cure disease, with a view to relieve, heal or cure, and having for its object the prevention, healing, remedying, cure or alleviation of disease."

The speaker of the evening suggests the advisability, and it is a most excellent suggestion, of a move being instituted to form a national society for the suppression of quackery and the prosecution of those who practice illegally. It is to be hoped that, in Philadelphia, which has the honor of being one of the earliest, if not the earliest center of medical learning, the great Philadelphia Medical Society with a membership of twelve hundred physicians, will appreciate its duty of higher citizenship and originate the effort not only of ridding this community of quacks, but of forming a national organization, whose object it will be to protect fellowmen from the fearful consequences of ignorance and quackery, as well as to save them from such extortion, extortion which passes all comprehension. Thus we could and should have the honor of being the first to identify ourselves with a movement, which disinterestedly interests itself in the highest needs and the welfare of our fellowmen.

Let us, from our membership, get together men strong in character, integrity and energy, full of purpose and force, who are willing from a conscientious point of view to pursue this arduous task and public duty with that spirit which knows nothing but success. A movement in this medical center, launched forth under such conditions must of necessity grow and develop until it has permeated the entire country.

THOMAS N. BARLOW.—I wish to express my appreciation and admiration for the very illuminating and scholarly address to which we have listened this evening. I particularly appreciate it because of the emphasis it gives to the necessity for the establishment of amendments to the police power, exercised by lawful authority, for the benefit of the people. As Mr. Andrews has said, the ordinary police channels are totally insufficient to meet the evils complained of in the paper read this evening. Special laws and special means are required, and the matter of repression and prosecution placed in the hands of people especially fitted for the work. The deterrent influence of such an organization is a thousand times greater than punitive; its very existence is a menace to evil doers. If such a society or committee is organized in Philadelphia, it will require greater expedition in the method of indictment and trial than we now have.

I may say in conclusion that I wish to congratulate my brother from New York on his presentation of one of the most concise, one of the clearest and most orderly addresses that I have ever listened to.

DR. COHEN.—I have listened with pleasure and instruction to the admirable address of Mr. Andrews. Following a thought of the last speaker, it may be recalled that some fifteen or more years ago, the Philadelphia County Medical Society undertook to prosecute offenders against the Medical Practice Act. We did not receive any assistance at the hands of the authorities, not that they were especially unwilling to assist us, but the law or practice in Pennsylvania did not favor it. We secured with much difficulty and expense a few convictions

and then the attempt was dropped. The other day my attention was attracted to a large sign board erected on the top of a house and bearing the name of one of the first offenders convicted by the County Medical Society. It stated that he treated "special diseases."

This bears out what our friend from New York has told us—that the offenders return to work the minute the vigilance is relaxed.

The community is greatly indebted to *Collier's Weekly* and the *Ladies' Home Journal* in particular, for their fight on "patent medicines." One of the greatest difficulties in the way has been pointed out by Mr. Andrews. I merely call attention to it, the Proprietary Association of America, with its unlimited capital and unremitting endeavors in defense of the nefarious occupation of its members. In ordinary fraudulent businesses, if the person responsible is found, the fraud can be broken up and the perpetrator put in jail. The men engaged in the "patent-medicine" trade are looked up to as representative citizens of the towns in which they live; they may be pillars of the church—often they are—liberal patrons of colleges and various other public institutions. It is pretty difficult to stop the disreputable work of respectable men, especially when they have taken the Lord into partnership. Moreover, these men have great political influence, perhaps sufficient in certain parts of the country to make and to unmake governors, senators, congressmen, legislators and the like.

They have been particularly generous sometimes to the villages which they left as poor boys, and thus the church, the school, the press, political interests and often public sentiment are against those who attack "patent medicines." Whatever the source and secret of their influence is, it has been so great as to cause an amendment of the Pure Food Law now before the United States Congress striking out the provision requiring the formulas of "patent medicines" to be printed on the package.

Dr. Roberts has called attention to a phase of the subject that must interest all medical men: the relations of the medical fraternity to the "patent medicine" industry. We can not say as a body that our hands and our spirits are clean, whatever care we may have taken individually, and the skirts of the medical press in particular are not free from contamination with the "patent-medicine" evil. The work of mine to which you have been good enough to refer, and which was done with the help of the Philadelphia County Medical Society and the Medical Society of the State of Pennsylvania, was directed to one end, namely, the purification of THE JOURNAL of the American Medical Association from "patent-medicine" advertisements. I might again relate the manner in which I was led into the work. I happened to have under my care the proprietor of an influential newspaper, and I called his attention to some advertisements of "patent medicines," especially so-called "consumption cures," in his paper. He had excluded the advertisements of abortionists, "specialists in diseases of men," and so forth, and these were what were technically called "clean" medical advertisements. He expressed surprise at my criticism and said: "Don't you know that your own medical journals publish the same kind of advertisements?" It was my turn to express surprise. "Well," he said, "take the trouble to look." I took the trouble and found it so. I had indeed "taken trouble" on myself. I then spoke to the proprietor of an influential medical journal, with whom I occupied a similar relation, and he said: "When you get those advertisements out of the journal, of which you are part proprietor, then come to me and talk about them." The journal of which you and I and many of our friends here are part proprietor, is THE JOURNAL of the American Medical Association. That journal, at that time, contained the worst advertisements of any in the world, so far as my observation has gone. As soon as the matter was brought to the attention of the American Medical Society, a resolution was passed for the exclusion of the advertisements, but that resolution, until within very recent years, remained to a large extent a dead letter, because the authorities of the American Medical Association were not willing to insist on it being carried out, because the pressure of "business interests" was too great to overcome.

We owe a debt of gratitude to Dr. Simmons, the present editor of THE JOURNAL, who has done more to organize the American Medical Association of America into a force for good than any of his contemporaries. He has begun in earnest the work of cleansing THE JOURNAL from nostrum advertisements and has begun to share with some of us Philadelphians the verbal compliments of the quacks and imposters and their journalistic mouth-pieces. Until the medical men succeed in cleaning the medical press, I doubt whether we have any right to say anything to the proprietors of the daily press.

I am very glad that our friends who are not of the profession are willing to bring pressure to bear on the daily newspapers, and to show them what harm they are doing, but I feel with Dr. Roberts, that until we have removed the beam from our own eye, we are not in a position to say anything out loud about the mote in the eye of others.

The American Medical Association has been suggested as the society to take up this work in general. I doubt whether that is possible. The American Medical Association has enough to do with its scientific work, with its work in public health promotion, properly so-called, and in keeping itself clean, to occupy all of its attention. But I believe that the American Medical Association might well co-operate with a national society, such as has been suggested.

In concluding, I have only to say that I have been personally indebted to Mr. Andrews for presenting to us his very clear view of the situation, and for pointing out to us the necessary steps that we must take in Philadelphia to get rid of fraudulent practitioners. There is no doubt that the police law should be changed, and that when it is changed, we should have somebody charged with the execution of this law so that it will not fall into innocuous desuetude. That body might be the State Board of Medical Examiners, or the Philadelphia County Medical Society, or some other society, but it should be some one definite body.

It has been suggested that if a physician abuse his license it should be revoked. I am heartily in accord with that proposition, but I think it would be dangerous to place such power in the hands of any other body than a court of law, which will hear both sides publicly. A lawyer can be disbarred only by order of court, and a physician should not have his license revoked except by order of court, but the State Board of Medical Examiners might call the attention of court to the facts and ask for revocation of license, as is done in the legal profession, I believe by the Bar Association.

PROFESSOR FRAZER—I am surprised that you call on me to say anything on this subject, who am neither lawyer nor physician, but I have listened with great interest to the paper this evening. I had thought the physicians who with altruistic spirit, claim everything for their profession, would also include quackery. I do not wish to introduce a discordant note, or one foreign to the subject which would distract the attention from Mr. Andrews' very able discussion, which concerns the medical profession; any yet not alone, for we have in geology and in chemistry as many quacks as you have, but our quacks are not quite so well off, nor are they so generally known. They are to be found, however, in Washington, Harrisburg, and some institutions of learning. Dr. Dixon, who is both a lawyer and a medical man; eminent in both professions and president of various institutions, could tell us how many professions he has seen invaded by quacks; he has seen many kinds in one hall.

I would simply add what tribute I can to the very excellent paper by Mr. Andrews, and say that I have derived a great deal of pleasure from it, and if I have an opportunity to further the movement he suggests in any way whatever, I will be only too glad to do so.

DR. DIXON.—Mr. Barlow refers to the police laws of Philadelphia, and it may be of interest to us to know that the Department of State had 1700 men in the fall, and will soon have 2800 men, any one of whom can arrest without warning, and the commissioner has power to employ counsel to prosecute the cases. Therefore, it seems to me, that the state has a law sufficiently broad to cover the questions before us to-night, but that is only applicable to the townships, outside of boroughs and cities, and does not apply to local practice.

HAWAII AS A FIELD FOR SCIENTIFIC WORK IN TROPICAL MEDICINE.*

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HOLUALOA, HAWAII.

In an address before the New York Pathological Society, Dr. Flexner, president of the Rockefeller Institute, speaking of dysentery, said:

> The attempt to establish a common etiologic factor for all cases of dysentery has thus far failed. . . . Given a disease that is never entirely absent from tropical regions, that appears with epidemic severity, that permits easy access to the *materies morbi*, one would certainly have been tempted to predict that the success achieved in so many apparently less difficult fields would probably be repeated. . . . Our imperfect knowledge of dysentery should be ascribed neither to lack of opportunity for the study of the disease nor to lack of energy in the pursuit.

After close acquaintance with the disease in the Philippines, Dr. Richard T. Strong recognizes two different forms on which he bases a careful report, from which I quote:

> Owing to the great frequency of dysentery in the Philippines our present inability to cope with the disease, and the fact that one attack appears to afford no protection whatever, makes it necessary that very thorough and careful studies should be made in order to discover, if possible, some method of preventing infection and possibly some serum that will affect a cure.

This applies very well to Hawaii.[1] By means of recruits from Hawaii and the Philippines, Dr. Craig of San Francisco has been able to study the pathology of chronic dysentery of tropical origin, and Professor Kieffer of Philadelphia to trace the relation between abscess of the liver and the *Ameba dysenteriæ*.

ANKYLOSTOMA DUODENALE.

Stimulated by the spirit of research in tropical phenomena, Dr. Stiles of Washington, D. C., discovered a new species of hookworm (*Uncinaria americana*), also giving rise to disease in man. This is the parasite that has caused the Porto Rican anemia we see in Hawaii and the heavy losses among sheep in Texas.

Egypt was the original habitat of the species, but, owing to our modern methods of travel, this undesirable foreigner is making himself hated away from home.

Another observer attributes ground-itch, a disease common in Assam, India, West Indies and the tropics generally, to the same parasite. He says:

> With this . . . to stimulate observation, no doubt others will be found in this country, and it is possible that the prevention of the spread of the disease will become an important matter of sanitation.

Dr. Claude A. Smith, demonstrator of pathology in the medical school of Atlanta, has made an exhaustive study of the disease in the South, a subtropical country, where it is extremely common and where it gives rise to anemias and cachexias that were formerly attributed to malaria. Since the arrival of the Porto Ricans in Hawaii, Dr. Sandow of Waimea, Kauai, has contributed a valuable paper on the subject,[2] but the disease still offers a free field for investigation.

A form, at least, of ankylostomiasis has been here for many years, and in 1895 I described a case in a Portuguese who had never been out of Hawaii. The symptomatology was classical, though little was known as to the etiology of the case.

BILHARZIA HEMATOBIA.

From far Egypt, where it is supposed to have originated, this disease came to the notice of Drs. Booth of Sparta, Ill., and Walker of Indiana. The latter says, "Practically no attention has been paid to the disease in this country."

Since the discovery of the trematode worm by Bilharz in 1851, the disease has been described by Drs. Allen, Henderson, Atherstone, Cobbold and Griesenger from cases seen in Cairo, the Cape, Natal, the Transvaal and islands neighboring to Africa. Hematuria attributed to cystitis, vesical calculus, nephritis and, particularly, malaria may be found in most cases to be caused, even here, by a specific hematobic organism.

In a case of persistent and rather extensive hematuria which came under my care at the Malulani Government Hospital in 1897, the patient[3] suffered considerable pain and at each micturition passed variable quantities of pure blood. Occasionally there were clots. By placing a specimen in a transparent vessel and holding it before a strong light, wavy threads might be seen. These contained numerous typical ova. Small quantities of blood containing ova were occasionally passed per rectum, and some dysenteric symptoms supervened as a result of the presence of the parasite.

BUBONIC PLAGUE.

Although so much has been written there is much more to know concerning this very ancient disease which, despite the liking its germ has for coolness, persists in staying with us. Perhaps it is an indirect compliment to our climate.

The Institute of Infectious Diseases of Berlin established a separate department for the study of plague, but its facilities are meager compared with what our own might be, especially as regards the etiology and symptomatology of the disease.

We have abundant clinical material and shall continue to have; and our autopsies have already furnished rich pathologic data.[4] What better field in which to differentiate scientifically plague from certain phases of cerebrospinal meningitis *en transport* between here and other ports. We have meningitis here on occasion, and we had a few cases in Hawaii at the time it was sporadically prevalent through the United States. Why was it prevalent? Why did it persist with untraceable foci? Have we had any cases of non-specific plague or climatic bubo? Should we know them if we did?

In 1902 Dr. Coty made an interesting report of twelve cases of non-specific plague. They were European males who had lived in the tropics from three and a half months to twenty-seven years. He says:

> We have in this condition an adenitis occurring in debilitated persons in the tropics, and the exciting cause is the entrance of the ordinary microbes of suppuration into the lymphatic system, most often through trifling lesions of the skin.

Manson speaks of abortive plague, another name for the mild or ambulatory form which Cantlie specifies as a type. The latter also classifies "climatic bubo" (really a non-specific adenitis) as pestis minor, stating that the disease "remains at present undetermined." He says:

> Climatic buboes as generally described give signs and symptoms wholly analogous to the descriptions of pestis minor we are familiar with. There exists a febrile state, an enlarged

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* Abridged from a paper read before the Hawaiian Territorial Medical Society, Honolulu, under the title, "A School of Tropical Medicine for Honolulu. Why Not?"

1. Goodhue, E. S.: "Some Notes on Dysentery," 1900.
2. Sandow: "Anchylostomiasis, a Disease Prevalent Among the Porto Rican Laborers and Their Families on Plantations," 1903.
3. He has since died. He was a brother of two of the best known society men and millionaires of New York.
4. Sinclair, A. N.: "Plague and Its Aspect in Honolulu," 1904. Cofer: Public Health Reports, Public Health and Marine-Hospital Service, Honolulu, 1900-1906. Goodhue, E. S. and W. J.: "The Eleele Epidemic," 1902.

inguinal gland which may or may not go on to suppuration, and the course of which can not be assigned to any local site of infection.

Dr. Sinclair of Honolulu has made a reasonable suggestion in recommending the use of pestis simulans instead of pestis minor. He says:

I would suggest the abolishing the term pestis minor (inherently it means a form of plague) and suggest pestis simulans as being non-committal for cases that run a mild course of true plague in districts where plague is more or less epidemic, and where it is impossible to demonstrate the presence of plague bacillus; pestis ambulans may be retained for cases of true plague as shown by bacteriologic examination, the case being ambulatory in its nature.

In 1903 a case of supposed plague was brought to the Mariam Emerson Hospital, Eleele, by the patient's physician and placed under my care.

CASE 1.—A Japanese woman, aged 20, married, with a good history, had been somewhat indisposed for a few days previous to the swelling of the glands in her right groin. When she presented herself she was suffering from headache, pain in the swollen, reddened femoral region, with a pulse rate of 115, and a temperature of 104 F. This continued for three days, the gland in the right groin reaching the size of a goose egg. The vertical string of glands in the opposite side and the axillary glands were also enlarged somewhat.

The right gland suppurated and broke down on the twelfth day, discharging a large amount of pus, which contained no plague bacilli, but many streptococci and diplococci. Much loss of tissue resulted, but the patient recovered and was discharged after three weeks.

Nearly every symptom of ordinary plague was present, though the case occurred about a year after the Eleele epidemic, near the site of which the patient had lived.

Manson's query as to whether pus germs might not neutralize the toxins of plague is worth considering.

Certainly the cases that go on to suppuration are the milder ones.

FILARIASIS.

Filariasis is little known here clinically, although it is widely distributed in Porto Rico, and several cases have been traced from that source to districts in the United States.

Dr. Sassure of Charleston, S. C., reports 22 cases, and Dr. Manson, in his work on tropical diseases, says that the *Filaria nocturna* has been found as an indigenous parasite in most tropical and subtropical districts. He says:

In many places quite 10 per cent, and in other places half, of the population harbor it. One-third at least of one district in India carry blood filaria. I find that in some of the islands of the South Seas, Samoa, for instance, fully one-half of the people are affected.

It would be interesting to know why Hawaii is blessed above her sisters.

CHOLERA.

This disease[5] came to us in 1895. It may not offer the field for research that some others do, but an enthusiastic laboratory student would have enough to do even with only eighty-seven cases. The question of diagnosis would have been settled quickly by expert opinion, and some new knowledge perhaps furnished regarding effective quarantine and infection through fish.

BERIBERI.

Theoretically as well as clinically this is another disease of great interest. The causation is largely unknown and offers a wide field for speculation, Rost and Ashmead holding that the disease is caused by the eating of fermented rice.

In 1903 the Institute for Medical Research, Federated Malay States, made a report of great value, basing their summary on 500 beriberi cases at the Kwala jail. Dr. Ross' reference to the similarity between beriberi and chronic arsenical poisoning is suggestive, and the theory may account for some epidemics which occurred outside of the beriberi habitat. Hawaii has had and still has much valuable material relating to the disease.[6] Dr. Donald Currie of Washington, D. C., describes some cases (1903) of "beriberi, or a disease closely resembling it, met in San Francisco in Chinese fishermen returning to San Francisco from Alaska." While the paper is interesting, its value is not so great as it would have been had the writer verified his diagnosis.

SYPHILIS.

While not particularly tropical, a compilation and careful record of syphilitic cases, the prevalence of the disease and its effect on the Hawaiian race, would be valuable data. There is much to be learned, too, from an examination of old Hawaiian skeletons which show, particularly in the vertebral portion, the destructive effects of syphilis in the days when that disease was new to the race.

Some work in the line of Dr. E. F. Robinson's investigations regarding the Philippines would be not only interesting but profitable.

OTHER DISEASES.

"I can assign no reason for the high percentage of tetanus in Florida," writes a practitioner to his editor, "unless it be that tetanus is far more prevalent in warm and moist climates than in cool and dry ones. This I read when I was a student about 40 years ago, and my residence here for 35 years confirms it."

It would be interesting carefully to tabulate the cases of *tetanus neonatorum* among Japanese in Hawaii and make an illustrative comparison between that disease and rheumatic tetanus.

Why is there absolute absence of scarlet fever in the tropics? Can it be transmitted here, or is Dr. Manson's theory correct? Why are acute rheumatic fever, erysipelas, rachitis and sunstroke rare in warm countries? What modifications, if any, do pertussis, measles, chicken pox, smallpox and German measles undergo when transferred to warm countries? Will diphtheria ever be a common disease in the tropics? With all our climatic tendencies, is pneumonia any milder here than it is abroad? What about that delightful disease of our childhood—mumps?

Dr. Malcolm Morris, always versatile and instructive, says of ringworm: "For years wisdom had been crying in the streets and no man regarded it, and about all we know of the disease is that it is caused by fungi and that those fungi are of more than one kind." I am now battling with a case of tropical ringworm, due, I believe, to the *Audouini*, differing from other forms, persistent, recurrent, having no regard whatever for the reputation of the attending therapeutist.

Would you know epidemic, gangrenous rectitis, said to be confined to hot, damp regions in the north of South America and in the islands of the South Pacific; sprue found in all tropical and subtropical countries; yaws distributed among the natives of all parts of the tropics, related perhaps to syphilis, and lately described by Dr. Musgrave of Manila, and the various lesions caused by the *Filaria medinensis*—would you recognize them, I ask, if you came across them?

5. "Special Report of the Board of Health on the Cholera Epidemic," 1895.

6. Cooper, Charles B.: "Berberi," 1905.

DIVERTICULITIS (NOT MECKEL'S) CAUSING INTESTINAL OBSTRUCTION.

MULTIPLE MESENTERIC (ACQUIRED) DIVERTICULA OF THE SMALL INTESTINE.*

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The so-called false or acquired diverticula of the small intestine have been of very little interest to clinicians because of their supposed rare occurrence and also because it was thought that they rarely or never give rise to any clinical symptoms.

The following case with multiple mesenteric diverticula of the small intestine shows that, apparently, even in these heretofore considered benign diverticula inflammatory changes may occur which may give rise to clinical symptoms and even endanger the life of the individual. In this case, apparently, one of the diverticula became inflamed and a diverticulitis occurred, causing a partial obliteration of the diverticulum. As the diverticulum extended between the folds of the mesentery, the later became inflamed, thickened and puckered, thus causing an angular bending of the intestine and obstructing its lumen. The local peritonitis arising as the result of this gave rise to the formation of adhesions between the mesentery of the small intestine and the transverse colon and its mesentery, and thus kinked the transverse colon.

Patient.—Mrs. ——, aged 45, was first seen by Dr. Gordinier Oct. 13, 1905.

Complaint.—Abdominal tenderness, with constipation following a supposed attack of appendicitis about three weeks previous.

Past History.—The patient was married, but never had any children; menstrual history was negative. Ten years ago she had an apparently definite attack of appendicitis; she was very ill, being in bed three weeks and was incapacitated for several weeks afterward. Since then she has enjoyed good health. She has always been troubled with constipation, and occasionally has some indigestion after eating, but the latter troubles her very little and has not been worse recently.

Present Illness.—While in Bennington, Vt., on Sept. 27, 1905, her previous health having been good, she was suddenly seized with severe abdominal pain starting near the umbilicus and extending in all directions, and followed by nausea and vomiting. Dr. A. S. M. Chisholm, Bennington, was called. Morphin had to be given to control the pain, and the bowels were moved with enemata and cathartics. After the bowels had been moved, this taking place on the second or third day, the patient felt much better, but remained in bed about a week altogether. From a communication received from Dr. Chisholm we learned that the patient's temperature was never over 1.5 degrees above normal, and that only on his first visit, and that her pulse never reached a hundred. There was great abdominal distension and, on this account, palpation was very unsatisfactory. The attack seemed like one of appendicitis to Dr. Chisholm, but he states that it was so atypical that it was impossible for him to make a positive diagnosis.

The patient returned to Troy, N. Y., on October 12 and was seen the following day by Dr. Gordinier of that city. He found that she felt weak and looked somewhat "run down" as the result of her recent illness. Her bowels had been moved each day by means of cathartics, but the movements were watery and had not appeared normal since her illness. She still complained of abdominal tenderness, and on palpation a sausage-shaped superficial mass could be felt just to the left of the umbilicus, and on deeper palpation a smaller mass was felt just about at the umbilicus (Fig. 1). Under catharsis, enemata and restricted diet the superficial mass gradually disappeared, but the deeper one persisted. Dr. Gordinier made a diagnosis of partial intestinal obstruction and inferred that the superficial mass was formed by a loop of the intestines distended with fecal material.

Consultation.—Dr. Sampson was called in consultation October 23. The patient had gained in strength and felt much better. She was still on restricted diet and the constipation persisted, the movements being watery. The deep-seated mass could still be palpated. It seemed to descend with inspiration, was tender, and it was difficult to estimate its size, as the abdominal walls were very thick, the patient weighing about 185 pounds. We considered many things which might account for the mass we felt and which could also cause obstruction of the intestine in that situation, such as a malignant growth, a Meckel's diverticulum, inflammatory mesenteric lymph glands, a mesenteric cyst, fecal concretions, etc.

Examination.—On vaginal examination the pelvic organs were found to be normal, and rectal examination, except for the presence of hemorrhoids, was negative. The stomach was distended by giving the patient tartaric acid and sodium bicarbonate, and it apparently did not bear any relation to the mass near the umbilicus.

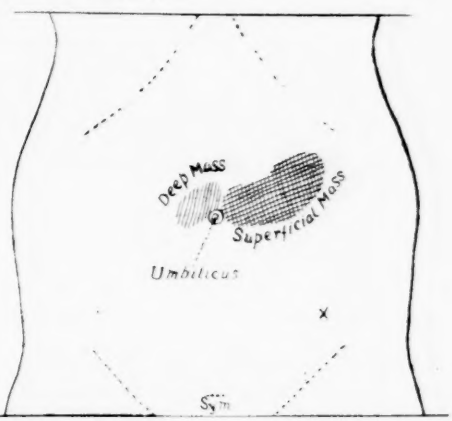


Fig. 1.—Tracing of the abdomen, showing the situation of the superficial and deep masses. The superficial, sausage-shaped mass was undoubtedly caused by the loop of small intestine, containing the diverticula and distended with fecal matter. The deep mass was probably formed by the adhesions between the kinked small intestine, caused by the inflamed diverticula and the mesocolon. See Figure 2.

Course of Disease.—As the patient's general health had greatly improved since her acute illness in September, it was thought best to wait. During the following four weeks she continued to improve, but the same indefinite mass could be felt at the umbilical region, at some times more distinctly than at others; and the constipation persisted, it being necessary to employ cathartics or enemata. The stools still continued to be watery, as they had been since her acute illness.

Preoperative Treatment.—As a deep-seated mass could still be palpated and had persisted, in spite of vigorous catharsis and the use of enemata, for over six weeks, it was thought best to make an exploratory incision in order to ascertain the cause of the trouble. With this in view the patient was admitted to the Samaritan Hospital of Troy, N. Y., on Nov. 23, 1905. After admission to the hospital she was put to bed and, for two days, she was given a course of treatment in order to empty the intestines thoroughly. Liquid food only was given, and that in small quantities. A vigorous course of saline catharsis was given. In addition the colon was irrigated with large quantities of water three times a day by means of a rectal tube connected with a fountain syringe, the patient lying in the Sims' position with hips elevated. On the second day she passed two large enteroliths, and after these a large quantity of soft fecal matter, the first approach to anything like a normal fecal movement since her illness in September.

On examining her, after this, the abdomen was much softer

* Read before the Medical Association of Troy and Vicinity, Jan. 2, 1906.

and the tumor had apparently disappeared. There was still some tenderness present about the navel and it was thought that this might have been due to a local inflammatory condition about the place where the enteroliths had been lodged. At this time it was thought that the entire condition might have been caused by the enteroliths. The patient wished to have a minor operation done, but was persuaded to wait a week until we felt sure about the other condition. The treatment by colonic irrigations was continued and also the catharsis, but the latter less vigorously. At the end of the week, during which time the patient had been having normal fluid bowel movements for the first time in two months, she was again examined and the same tender area was found near the umbilicus, and it seemed as if one's fingers rolled over an indefinite tender mass.

Operation.—On December 2 Dr. Sampson performed an exploratory laparotomy; a loop of small intestine adherent to the transverse colon and its mesentery was freed, the distal portion of an occluded diverticulum was removed and the angular kink in the small intestine, caused by the mesenteritis, resulting from the inflamed diverticulum, was released.

An incision about 10 cm. long was made through the left rectus muscle, at about the level of the umbilicus. The omentum was freed and lifted out of the way, and the transverse colon with adherent loop of the small intestine was delivered into the wound. Thirteen diverticula varying from 0.5 cm. to 1.5 cm. in diameter were found in about 40 cm. of the small intestine, which was distended to about half again its natural size. These diverticula were all in the mesenteric border and extended between the folds of the latter, in ten instances being more prominent on its upper surface. They bore a very definite relation to the large blood vessels, penetrating the intestines at the mesenteric border; as in every instance a large vessel extended over the surface of the diverticulum. Apparently they all consisted of serosa, submucosa and mucosa, the musculature being absent, i. e., they were hernial protrusions of the mucosa and submucosa through a weakened spot in the wall of the gut and beneath the serosa of the mesentery. They could all be invaginated into the lumen of the bowel, and the base of each diverticulum seemed to be nearly as large as its distal portion (Fig. 2). On freeing the loop of the small intestine, which was adherent to the colon and its mesentery, a small infected cyst, about 1.5 cm. in its long diameter, was ruptured (Fig. 3). This cyst was situated in the inflamed mesentery of the small intestine at its attachment to the latter. Apparently a diverticulum had become inflamed and its base occluded. It, therefore, no longer communicated with the lumen of the intestine, and its patent distal portion became converted into an infected cyst. The origin of mesenteric cysts from mesenteric diverticula has been recently suggested by Ayer[1]. Unfortunately the non-dilated portion of the intestine, beyond the kinked portion, was not very carefully examined and diverticula were not observed in this portion.

It could be argued that a small mesenteric cyst, situated at the intestinal border, had become infected, causing a mesenteritis and kinking of the bowel, and that these diverticula had arisen as a result of the distension from the partial obstruction of the intestine. There is no doubt but that the obstruction made the diverticula larger and more conspicuous, but if they owed their origin to intestinal distension alone we would expect to find them in every case of intestinal obstruction, whether acute or chronic, and especially the latter. On the other hand small diverticula could be present which would easily escape observation unless the intestine was examined very carefully (unfortunately not done in this case). Should one of these diverticula become infected a mesenteritis would result; the base of the diverticulum might become compressed and then occluded by inflammation. Its distal patent portion would become distended and a condition such as the above would occur. As a result of the kinking of the intestines obstruction would take place and previously insignificant and small diverticula would become greatly enlarged, and therefore more conspicuous.

The distal cystic portion of the partially obliterated diverticulum was removed and its base reinforced with sutures of fine catgut, taking care to avoid injuring the mesenteric vessels. The puckered mesentery was straightened out, thus relieving the angular kink in the small intestine. The question arose as to what should be done with the remaining diverticula. One hesitates to resect over forty centimeters of the small intestine unless it is absolutely indicated, especially when the distension would cease and the diverticula would become much smaller after the obstruction had been relieved. The invagination of each diverticulum and the closure of its hernial opening in the intestine was considered, but this did not seem advisable on account of the intimate relation between the diverticula and the larger blood vessels. The procedure would certainly occlude some of the larger blood vessels of the intestine and might cause necrosis of the portion of intestine nourished by the blood vessel.

Still further it seemed best not to disturb the remaining diverticula because:

1. They had probably been present for a long time and only one had given rise to any clinical symptoms.

2. Their situation in the upper portion of the circumference of the intestine and between the folds of the mesentery insures better drainage of their contents and also greater protection from secondary pathologic changes than in diverticula arising from the free border of the intestines.

3. The fluid contents of the small intestine, and the broad bases, with patent orifices of the diverticula, both make it very unlikely that any trouble will ever arise from the accumulation of fecal material in the diverticula, as occurs in similar diverticula of the large intestine. In addition, all the other diverticula were examined and found empty, and in none could any secondary pathologic changes be detected.

A small gauze drain covered with rubber protective was placed down to the raw and infected area and the abdominal incision was closed. The drain was removed at the end of forty-eight hours. Convalescence was uneventful; the patient left the hospital three weeks after the operation.

Remarks.—The exact portion of the small intestine involved was not ascertained, but judging from the length of the intestines exposed proximal to the involved portion of the intestines, the diverticula were situated in the upper portion of the ileum or in the lower portion of the jejunum.

An interesting question arises as to the situation of the enteroliths. There were two, about the size of hen's eggs, and we do not believe that they could have been situated in the small intestine. If they formed the mass which was palpated just before the very vigorous catharsis and colonic irrigations, they must have been situated in the transverse colon, which had been kinked by the adherent mesentery of the small intestine, otherwise the enteroliths were never palpated and the mass which disappeared was fecal material which had accumulated back of the stricture. It is impossible to settle this point.

INTESTINAL DIVERTICULA.

Diverticula of the intestines may be classified as congenital and acquired. Histologically they may be classified as true and false, the former containing all the coats of the intestine and the latter being but hernial protrusion of the inner coats through the muscularis. All congenital diverticula are true ones and the acquired ones are nearly always false, but true acquired diverticula have been reported.

The vermiform appendix is a true congenital diverticulum containing all the coats of the cecum. The pathologic changes which may occur in this diverticulum and their clinical manifestations will not be considered here.

Meckel's diverticulum is another example of a congenital true diverticulum. According to Kelly and Hurdon[2] it occurs in 0.5 to 2 per cent. of all bodies coming to autopsy and usually arises from the ileum from 80 to

1. Ayer: "Enteric and Mesenteric Cysts, with Report of an Unusual Case," Amer. Jour. Med. Sciences, 1906, vol. cxxxi, p. 100.

2. Kelly and Hurdon: "The Vermiform Appendix and Its Diseases," Saunders & Co., Philadelphia, Pa., 1905, p. 594.

290 cm. from the cecum, but may arise from the duodenum or jejunum. This diverticulum is of great surgical importance, causing, according to Halstead,[3] 6 per cent. of all cases of intestinal obstruction, aside from giving rise to other forms of acute abdominal conditions demanding surgical interference. A full consideration of the subject, with a complete review of the literature, has recently been made by Dreifeus,[4] and Porter[5] has recently analyzed 184 cases and has described the pathologic conditions caused by this diverticulum.

The acquired diverticula occur much more frequently than autopsy records show and are apparently less likely to give rise to symptoms than Meckel's diverticulum, which may account for their supposed infrequency. They may be classified according to the portion of the intestines from which they arise, i. e., whether the small or large intestine. Judging from autopsy and clinical reports, they occur more frequently in the large intestine and especially in the sigmoid.

FREQUENCY OF ACQUIRED DIVERTICULA OF THE INTESTINES.

These diverticula, especially as they are frequently mesenteric, could be easily overlooked at autopsy unless the intestines were examined very carefully. Heretofore they have been of very little general pathologic and clinical interest, and for these reasons all pathologists have not borne them in mind while making their autopsies and studying the intestines afterward. These points are well shown in Table 1.

TABLE 1.

Source.	Number of autopsies.	Meckel's diverticulum.	Acquired diverticula. Small intestine.	Large intestine.
1	8,133	8	1	6
2	2,600	15	14	19
3	2,382	11	1	1
4	953	5	0	2
Total	14,068	39	16	28

Table 1.—Compiled from: 1, Records of the City Hospital of Dresden, Freidrich Stadt (Georgi's[6] article): 2, the Johns Hopkins Hospital (communicated by Dr. C. H. Bunting); 3, the Boston City Hospital (communicated by Dr. F. B. Mallory), and 4, the Bender Hygienic Laboratory (communicated by Dr. R. M. Pearce).

This table does not show the actual occurrence of these diverticula, but rather that they are much more frequent than the records indicate when one institution has recorded 32 instances (one case presenting diverticula in both the large and the small intestine) of acquired diverticula of the intestines, as compared with only 11 similar cases in over four times the number of autopsies from three other sources. Two other interesting features of the records of the above-mentioned hospital show that in 2,600 autopsies these acquired diverticula occurred over twice as often as Meckel's, and, furthermore, that they were nearly as frequent in the small as in the large intestine. It is evident that these diverticula occur more frequently than the autopsy records indicate, and, as shall be shown, they are of much greater clinical importance than has been accorded them.

ETIOLOGY OF ACQUIRED INTESTINAL DIVERTICULA.

Of the predisposing causes, constipation, old age, cachexia, obesity and chronic passive congestion seem to have been important etiologic factors in many of the reported cases. Traction undoubtedly causes, occasionally, an intestinal diverticulum, as shown by a few cases reported, in which a tumor, which was adherent to a portion of the intestines, has pulled it out, forming a diverticulum. Their prevalence at the mesenteric border and their relation to the blood vessels penetrating the intestines at this place was explained by Klebs[7] on the theory of traction. More probably they arise from pressure within forcing the inner coats of the intestine through a weakened place in the intestinal wall, and this better explains their frequent intimate relation to the blood vessels penetrating the intestines at the mesenteric border, as has been emphasized by several of the later investigators.[8]

Many experiments have been made to ascertain the origin of these diverticula by injecting intestines removed at autopsy and also by injecting the living intestines of dogs. The results of these experiments have been fully described by Beer.[9] While these experiments may be interesting, they have very little value in explaining the etiology of these diverticula, for if they were caused by intraintestinal pressure alone they would be found in every instance of acute, and especially of chronic, intestinal obstruction from any cause. These diverticula are hernias, and, as in other hernias, there must be a local weakness of the wall through which the hernial sac may be forced. In many instances—and this is especially true of the small intestine—the penetration of the intestinal walls by the large vessels at the mesenteric border causes this weak place. In other cases in which they occur on the free border of the intestines, as they may in the large intestines or even in the epiploical appendages, we must assume that here, too, there was present a weakened place in the musculature of the intestinal wall.

CLINICAL SIGNIFICANCE OF ACQUIRED DIVERTICULA OF THE SMALL INTESTINE.

We have been unable to find a single case reported in the literature in which clinical symptoms have arisen from diverticula of the small intestine. In our case the patient did not suffer from any marked attacks of indigestion, nor were there any local disturbances until the sudden onset of diverticulitis, causing mesenteritis and intestinal obstruction two months before her operation. We therefore conclude that the diverticula which must have been present for some time did not give rise to any marked symptoms until the present attack.

On the other hand, the presence of inflammatory changes found in the diverticula described by Fischer, together with our case, shows that not only is it possible for these diverticula to have minor secondary pathologic changes and hence possibly give rise to minor clinical disturbances, but it is also possible that serious changes may occur, thus endangering the life of the individual. One may have all the inflammatory changes (but less frequently, for reasons already given) that may occur in any diverticulum, with the secondary local or general peritonitis. In addition its usual situation between the folds of the mesentery causes a mesenteritis as a complication of the diverticulitis. In such cases the mesentery may become thickened, puckered and folded, giving rise to the angular bending of the intestine found in our case

3. Halstead: "Intestinal Obstruction from Meckel's Diverticulum," Annals of Surgery, 1902, vol. xxv, p. 477.

4. Dreifens: "Das Diverticulum Ilei," Centbl. f. d. Grenzeb. d. Med. Chir., 1905, vol. viii, Nos. 11 to 16.

5. Porter: "Abdominal Crises Caused by Meckel's Diverticulum," THE JOURNAL A. M. A., 1905, vol. xlv, pp. 883 to 889.

6. Georgi: "Ueber das erworbene Darmdivertikel und seine praktische Bedeutung," Deutsche Zeitft. f. Chir., 1902, vol. lxvii, pp. 321 to 329.

7. Klebs: "Handbuch der Path. Anat.," Berlin, 1869, vol. i, p. 271.

8. Fisher: "False Diverticula of the Intestine," Jour. Exp. Med., 1900-1901, vol. v, pp. 323 to 352.

9. Beer: "Some Pathological and Clinical Aspects of Acquired (false) Diverticula of the Intestines," Amer. Jour. Med. Sciences, 1904, vol. cxxviii, pp. 135 to 145.

and causing intestinal obstruction. It is also possible that a diverticulum may become so thin that a sudden increase in intra-abdominal pressure may cause its rupture, as has occurred in cases of diverticula of the large intestine.

As shown in the consideration of the frequency of false diverticula of the small intestine, these occur more often than the autopsy records show. As they have not been duly recognized, they undoubtedly have given rise to minor or serious secondary pathologic changes, which either have been overlooked or the cause of the trouble has not been correctly interpreted, the condition being incorrectly attributed to pathologic changes caused by the appendix or by Meckel's diverticulum or some other condition.

Our present knowledge suggests that the acquired diverticula of the small intestine, when present, are less of a menace to the life of the individual than similar diverticula of the large intestine or Meckel's diverticulum, and possibly even less than the vermiform appendix. On the other hand, we do not as yet know what rôle it plays in the causation of minor complaints, as indigestion and indefinite abdominal pain and discomfort.

TREATMENT OF ACQUIRED DIVERTICULA OF THE SMALL INTESTINE.

For the following reasons it would seem that these diverticula do not need surgical interference unless causing definite symptoms, and the treatment in these cases should vary with the demands of each individual case:

1. The fact that this condition has frequently been overlooked at autopsy and that we have been unable to find any cases reported in which secondary pathologic changes have caused clinical symptoms, suggests that these rarely occur. The reason for this can readily be understood from the situation of the diverticula and the fluid contents of the small intestine, as has previously been explained.

2. The usual situation of the diverticula between the folds of the mesentery and their intimate relation with the larger blood vessels make any operative measures on individual diverticula attended with danger of injuring the blood vessels crossing the diverticulum, and thus possibly causing local intestinal necrosis.

3. The diverticula are usually multiple and a long area of the intestine may be involved, sometimes the greater portion of the small intestine, thus excluding, in most cases, the advisability of resecting the area of the intestine involved.

THE CLINICAL SIGNIFICANCE OF ACQUIRED DIVERTICULA OF THE LARGE INTESTINE.

Judging from autopsy reports, acquired diverticula of the large intestine are more frequent than those of the small intestine. In 2,600 autopsies at the Johns Hopkins Hospital there were thirteen diverticula of the small intestine, as compared with eighteen of the large and one of both. Secondary pathologic changes occur in these more frequently than in those of the small intestine, and this may account for their having been observed more frequently. They are also usually multiple and may arise from any portion of the circumference of the intestine, the mesenteric border or free surface, and they may also extend into the epiploical appendages. They have been observed most frequently in the sigmoid flexure, but may occur in the other parts, including the appendix. In some instances it has been possible to demonstrate their relation to the larger blood vessels, i. e., in cases in which they develop in the mesentery, as in those of the small intestine. In other cases in which they have arisen from the free border this relation has not been so evident.

The contents of the large intestine being harder than that of the small, and thus the liability of these diverticula becoming filled with hardened fecal matter renders them more prone to secondary inflammatory changes, which is especially true for the diverticula arising from the free surface of the intestine.

In 1904 Beer[9] collected from the literature 18 instances of inflammatory processes arising in these diverticula and leading to grave, often fatal, results. The same year Heine[10] collected 8 instances of intestinovesical fistula, including one case of his own, where such a fistula had resulted from a false diverticulum of the large intestine becoming adherent to and ulcerating into the bladder. He states that these fistulæ occur more frequently than has been supposed, and he gives abstracts of 9 other reported cases of vesico-intestinal fistulæ, which from their description should probably be included in this group, but in which the author had not considered this condition. It is evident that these diverticula are of considerable clinical importance, especially as they cause trouble much more frequently than the literature shows, because they either have not been recognized or the true condition has been attributed to something else. Cases representing all forms of acute inflammatory conditions and the results of these conditions have been reported, and Hochenegg[11] has reported one instance of cancer arising in one of these diverticula.

Stricture of the intestine or a localized abscess formation which may result from inflammatory changes in these diverticula form a most important group of cases, as they have usually been diagnosed as cancer, thus suggesting that other cases diagnosed as cancer may have been these. This would well account for some of the good results following colostomy in clinically diagnosed inoperable cancer of the sigmoid.

The following case may have been one of this class:

Patients.—Mrs. C. F., aged 63, was admitted to the Johns Hopkins Hospital May 7, 1904.

History.—She complained of pain in the lower abdomen and pressure on the rectum caused a great desire to go to stool, but she was not relieved by movements of her bowels. For two years there had been slight pain in the left ovarian region, and her present illness was of one week's duration, with the onset of severe cramps and with rectal symptoms necessitating her staying in bed.

Examination.—On pelvic examination a mass about the size of one's fist was felt adherent to the left side of the pelvis in the region of the right ovary. A probable diagnosis of malignant growth of the ovary, causing pressure on the rectum, was made.

Operation.—An exploratory laparotomy was made by Dr. Sampson (then resident gynecologist of that hospital), and the tumor, which was densely adherent, was found to have arisen from the sigmoid. A diagnosis of carcinoma of the sigmoid was made and attempts were made to remove it, but after partially freeing it this was abandoned. During the manipulations necrotic tissue was encountered, suggesting the presence of an abscess which could well have arisen from a necrotic cancerous involvement of the sigmoid. A loop of the sigmoid

10. Heine: "Ueber Darmblasenfisteln infolge von Darmdivertikel," Centbl. f. die Kr. d. Harn u. Sex. Organe, 1904, vol. xv, pp. 401 to 415 and 458 to 471.

11. Hochenegg: "Behandlungsresultate bei Dickdarm-Carcinoma," Deutschen Ges. f. Chir., thirty-first meeting, reported in Berl. klin. Wochft., 1902, vol. xxxix, p. 343.

Fig. 2.—Distended loop of small intestine, showing five mesenteric diverticula and a kinking of the intestine due to adhesions resulting from an inflamed diverticulum (natural size). The omentum has been lifted up, showing the under surface of the transverse colon, with its mesocolon and a partially obstructed loop of the small intestine adherent to the latter. Notice that the diverticula of the distended portion of the small intestine extend between the folds of the mesentery and are crossed by large blood vessels supplying the intestine.

above the tumor was brought out through a gridiron inguinal incision and sutured there so that a colostomy could be made whenever the occasion demanded. The field of operation was drained and the abdominal incision closed.

The patient left the hospital in a month's time feeling greatly relieved, and with the understanding that a colostomy would be established whenever necessary. From a reply dated Dec. 16, 1905, to a communication addressed to her physician, Dr. E. B. Fenby of Baltimore, we learn that it has not yet been necessary to open the sigmoid, and also that the patient is in the best of health, teaching school, and on examination it was found that the lump, previously felt in the pelvis, has disappeared.

The effect of mesenteritis arising from diverticulitis is well shown in the first case here reported, where the puckering, thickening and folding of the mesentery had given rise to an angular bending of the intestine, and one can well see how such a condition could be the axis about which a volvulus might be formed. Our case, then, supports the views of Brehm[12] as to the possible relation between diverticulitis, mesenteritis and volvulus.

THE TREATMENT OF ACQUIRED DIVERTICULA OF THE LARGE INTESTINE.

It is evident that these diverticula are much more likely to undergo secondary pathologic changes and hence to give rise to clinical symptoms than similar ones of the small intestine, and for this reason they more often demand surgical interference. On the other hand it is apparently the exception rather than the rule for these diverticula to cause serious trouble. We do not know how important a rôle they play in the cause of minor ailments. A very interesting clinical feature is the mistake made in their diagnosis and especially their being taken for cancer of the large intestine. In cases demanding operative interference the treatment should vary with the condition found.

On the other hand, when found accidentally these diverticula should be removed, unless too numerous, and if this can be done without interfering with the nourishment of the intestines. This is especially true of those arising from the free surface of the intestines, as they are more easily removed and also more likely to cause trouble than those developing into the mesentery.

CONCLUSIONS.

Acquired diverticula of the small intestine occur much more frequently than the autopsy records show, and undoubtedly have often caused minor symptoms and even occasionally endangered life, and the true cause of the trouble has not been recognized. These diverticula are usually multiple and long areas of the intestine may be involved, even the entire length of the small intestine. They consist of hernial protrusions of the mucosa and submucosa through a weakened place in the intestinal wall, and they usually escape alongside of the blood vessels penetrating the intestinal wall at the mesenteric border, and thus push between the two folds of the mesentery. Their usual situation, between the folds of the mesentery, renders them less likely to undergo pathologic changes than diverticula hanging free in the peritoneal cavity or attached to the abdominal wall. Also the fluid contents of the small intestine render

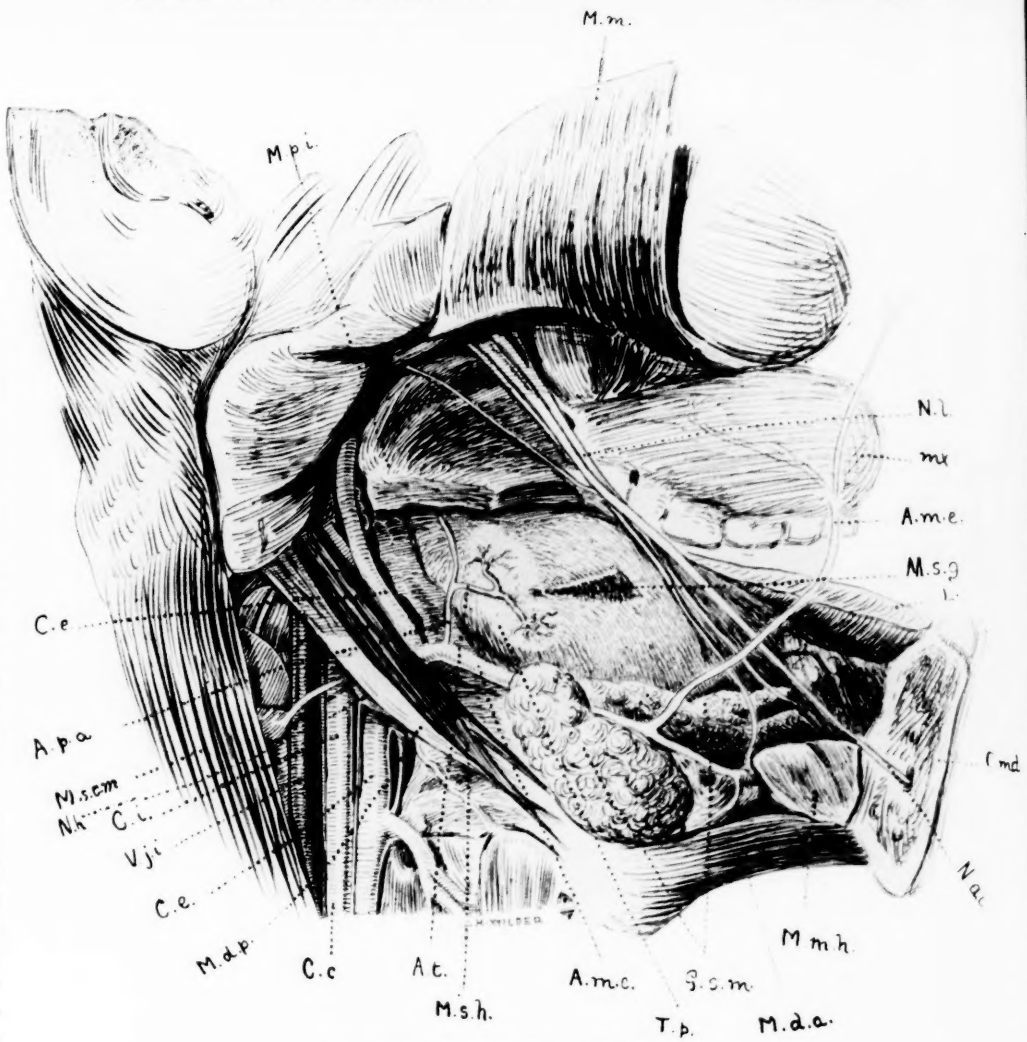
Fig. 3.—Diverticulitis causing local peritonitis and mesenteritis with a resulting angular bend in the intestine causing obstruction (natural size.) The loop of the small intestine, adherent to the mesocolon, has been freed, and in doing so the distal portion of the inflamed diverticulum has been ruptured. The base of the inflamed diverticulum has been occluded, so that the distal portion appears like a small infected mesenteric cyst situated near the border of the intestine.

12. Brehm: "Ueber die Mesenterialschrumpfung in ihre Beziehung z. Volvulus der Flexura sigmoidea." Archiv. f. klin. Chir., 1903, vol. lxx, pp. 267 to 301.

them less of a menace to the individual than similar diverticula of the large intestine. Should inflammatory changes arise, a mesenteritis is likely to occur with a resulting puckering of the mesentery and possible kinking of the bowel, as occurred in the case here reported. As these diverticula are usually multiple, thus involving a long area of the intestinal tract, and as they are usually intimately associated with the larger blood vessels of the intestines, they are ill adapted to safe operative procedures and apparently these have seldom been indicated. When secondary pathologic changes occur, thus endangering the welfare of the individual, operative treatment may be indicated, and this must vary with the demands of each case.

The acquired diverticula of the large intestine may arise from any portion of its circumference and have been most frequently found in the sigmoid flexure. They have been more frequently observed than similar ones of the small intestine, and several cases have been reported in which they have given rise to serious trouble. They are usually multiple and consist of hernial protrusions of the mucosa and submucosa through a weakened spot in the intestinal wall. As the contents of the large intestine are harder than those of the small, and as these diverticula occur more frequently on the free border of the intestine than do those of the small, they are more apt to undergo secondary pathologic changes and to endanger the welfare of the individual. Of great clinical interest is the difficulty in diagnosing the strictures and inflammatory tumors which may result, from cancer, and also that intestinal diverticula are a frequent source of vesicointestinal fistula.

We again emphasize the fact that acquired diverticula of both the small and large intestine undoubtedly occur more frequently and also more frequently give rise to clinical symptoms than the reported cases and autopsy records indicate, and for this reason we would especially urge that this condition be borne in mind, both by pathologists and clinicians, in order that the medical profession may learn the frequency of their occurrence and also the part played by them as a cause of both minor and more serious abdominal disturbances.[13]



(Illustrating Dr. Wilson's Article.)

Fig. 2.—Dissection to show the tonsil and its arterial supply from the outer side; part of inferior maxilla removed. T.p., palatine tonsil; A.t., tonsillar artery; C.c., common carotid; C.e., external carotid; C.i., internal carotid; A.m.e., facial artery; A.p.a., ascending palatine artery; V.j.i., internal jugular vein; L., tongue; N. h., hypoglossal nerve with ramus descendens; N.l., lingual nerve and N.a.i., inferior alveolar nerve (drawn upward); C.md., inferior maxilla; mx., superior maxilla; G.s.m., submaxillary gland. Muscles: M.p.i., internal pterygoid (cut); M.m., masseter (turned up); M.s.g., styloglossus (cut); M.s.h., stylohyoid; M.d.p. and M.d.a., digastric muscle; M.s.c.m., sternomastoid; M.m.h., mylohyoid (turned down).

(Illustrating Dr. Wilson's Article.)

Fig. 1.—Transverse section of an enlarged tonsil, removed immediately after death, from a male, aged 28. Drawn from microphotograph. Adhesion of plica triangularis P.t., of anterior pillar (A.g.p.), and of posterior pillar (A.p.p.), to the tonsil. F.t., tonsillar crypt; N.l., lymphoid follicle; C.l., capsule; M.c.s., superior constrictor muscle.

13. For other contributions see collateral references in the articles cited in the footnotes.

SOME ANATOMIC AND PHYSIOLOGIC CONSIDERATIONS OF THE FAUCIAL TONSIL.*

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INTRODUCTION.

In the true pharynx—that is, posterior to the tongue—there exists a more or less continuous ring of lymph follicles with their accompanying lymphatic vessels, differing in macroscopic but similar in microscopic appearance, generally called Waldeyer's ring. Beginning in the posterior pharyngeal wall as the pharyngeal tonsil, this ring passes to the follicular tissue in the pharyngeal recess, Rosenmüller's fossa, thence around the pharyngeal orifice of the Eustachian tube to the soft palate, and along the posterior pillar of the fauces to the palatine tonsil, which is connected with its fellow by the mass of follicular tissue at the base of the tongue, the so-called lingual tonsil. From this ring, lymphatic prolongations of varying extent pass off into the nasal fossæ, to the epiglottis and to the larynx.

This ring exists as:

1. More or less irregular masses—as in the soft palate.
2. Continuous layers at the base of tongue and round the tube comparable to Peyer's patches.
3. Circumscribed masses possessing a fibrous connective tissue boundary and forming a more or less distinct unit. These form on the pharyngeal wall the pharyngeal tonsil, and between the pillars of the fauces, the palatine or faucial tonsil. They are analogous in many respects to the lymphatic glands, but differ in having crypts or furrows which communicate with the buccal cavity.

It is to the last of these, the palatine tonsils, that attention is here directed; and it is to the palatine tonsils I refer when speaking generally of the tonsils.

In this section of the paper I limit myself to a brief discussion of some points bearing on the surgical anatomy of the tonsil.

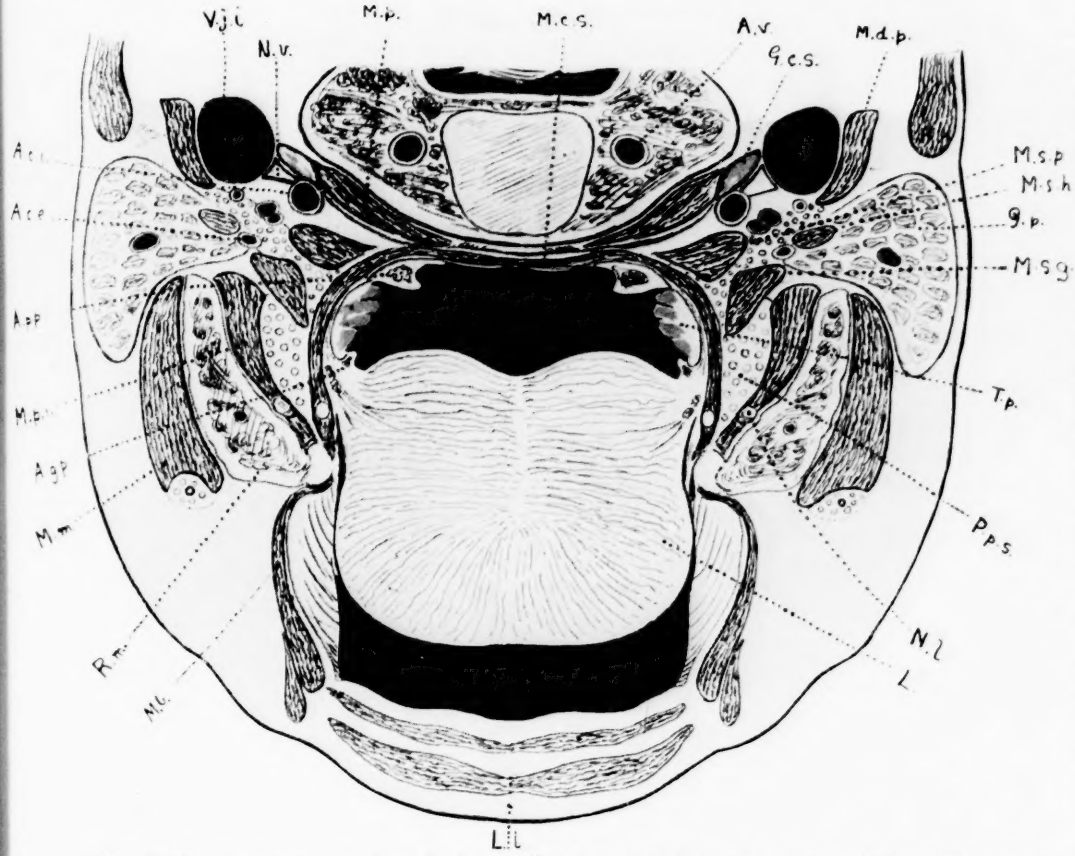

Fig. 3.—Transverse section through the tonsil. T.p., faucial tonsil; A.g.p., anterior pillar; A.p.p., posterior pillar; P.p.s., pterygopharyngeal space; G.p., parotid gland; A.c.e., external carotid artery; A.c.i., internal carotid artery; V.j.i., internal jugular vein; A.v., vertebral artery; M.p., prevertebral muscles and fascia; R.m., ramus of mandible; N.v., vagus nerve; G.c.s., superior cervical ganglion; M.b., buccinator muscle; M.c.s., superior constrictor; L.l., lower lip with orbicularis muscle; L., tongue (cut). (Other lettering as in Fig. 2.)

THE NORMAL SIZE AND DEVELOPMENT OF THE TONSILS.

The normal size of the palatine tonsil is hard to determine, since few have escaped some irritation and inflammation. The following measurements appear to me to be as nearly accurate as any: Length, 20 mm. (Luschka); breadth, 12 to 15 mm. (Sappey); thickness, 13 mm. (Luschka).

Of the follicular masses forming Waldeyer's ring, the pharyngeal tonsil is the first to develop; it is well marked at birth and reaches maturity at the end of the first or second year. It retains this mature state till the twelfth year, when it begins to retrograde.[1] The activity of the palatine tonsil has been demonstrated at the end of fetal life not only

Fig. 4.—Relation of supratonsillar fossa to soft palate; + marks average position of the apex of the fossa in 12 cases in which its presence was marked. F.s.t., fossa supratonsillaris; P.t., plica triangularis; A.g.p., anterior pillar; A.p.p., posterior pillar; T.p., tonsil; L., tongue.

* Read at the conjoined meeting of the Chicago Medical and the Chicago Laryngological and Otological Societies, March 7, 1906.

1. Poirier et Charpy: "Anatom. Humaine," vol. iv, p. 165.

by the multiplication of lymphocytes in the follicles, but by the infiltration of leucocytes into the overlying epithelium.[2] It is well developed at the end of the first year, but apparently does not reach maturity till the fifth year. The lingual and tubal lymph follicles are slower in reaching maturity and can only be said to be definitely developed about the twelfth year. All these dates, however, are very variable, depending on individual peculiarities.

The Capsule of the Tonsil.—The tonsil is enclosed in a capsule of connective tissue which, according to Zuckerkand, is normally 1 mm. thick.[3] From the capsule bands go off between the lymph follicles in which lie the blood vessels and lymphatics. The capsule is covered externally by the superior constrictor muscle and by the attachments of the anterior and posterior pillars of the fauces containing the M. glosso-palatinus and M. pharyngo-palatinus.

What is the effect of hypertrophy of the tonsil on the capsule? In hypertrophy either or both of the pillars may become more closely related to the capsule and the follicular tissue in the pillars may blend with the corresponding tissue of the tonsil. Labbé[4] showed that in children and young adults there is in hypertrophy no real thickening of the connective tissue and that the proportion of connective tissue is relatively not greater than normal. This has received ample corroboration. In the enlarged tonsils I have examined, this appears to be the case. It is especially to be noted in tonsils which are removed along with their capsule immediately after the sudden death of a healthy adult. In such cases one can note how the crypts and follicular tissue encroach on the connective tissue capsule (Fig. 1).

The Blood Supply.—The blood supply to the tonsils is given differently in English anatomic texts. Thus Gray[5] gives "the dorsalis linguæ from the lingual artery, ascending palatine and tonsillar from the facial, the ascending pharyngeal from the external carotid, and the descending palatine from the internal maxillary, and a twig from the small meningeal." While this description may apply to such animals as the dog, in which certainly the main supply comes from the lingual, it does not accord with what we usually find in man. My observations lead me to believe that the main blood supply in man comes from the facial, either through a distinct tonsillar artery or more commonly from the tonsillar branch of the ascending palatine branch of the facial. The dorsalis linguæ gives one or two branches which pass into the lingual side of the sinus tonsillaris, but its distribution is chiefly to the pillars of the fauces and to the plica triangularis and any follicular tissue which may be there. A branch of the descending palatine lies in the soft palate in the region of the supra tonsillar fossa. I have observed a few cases in which

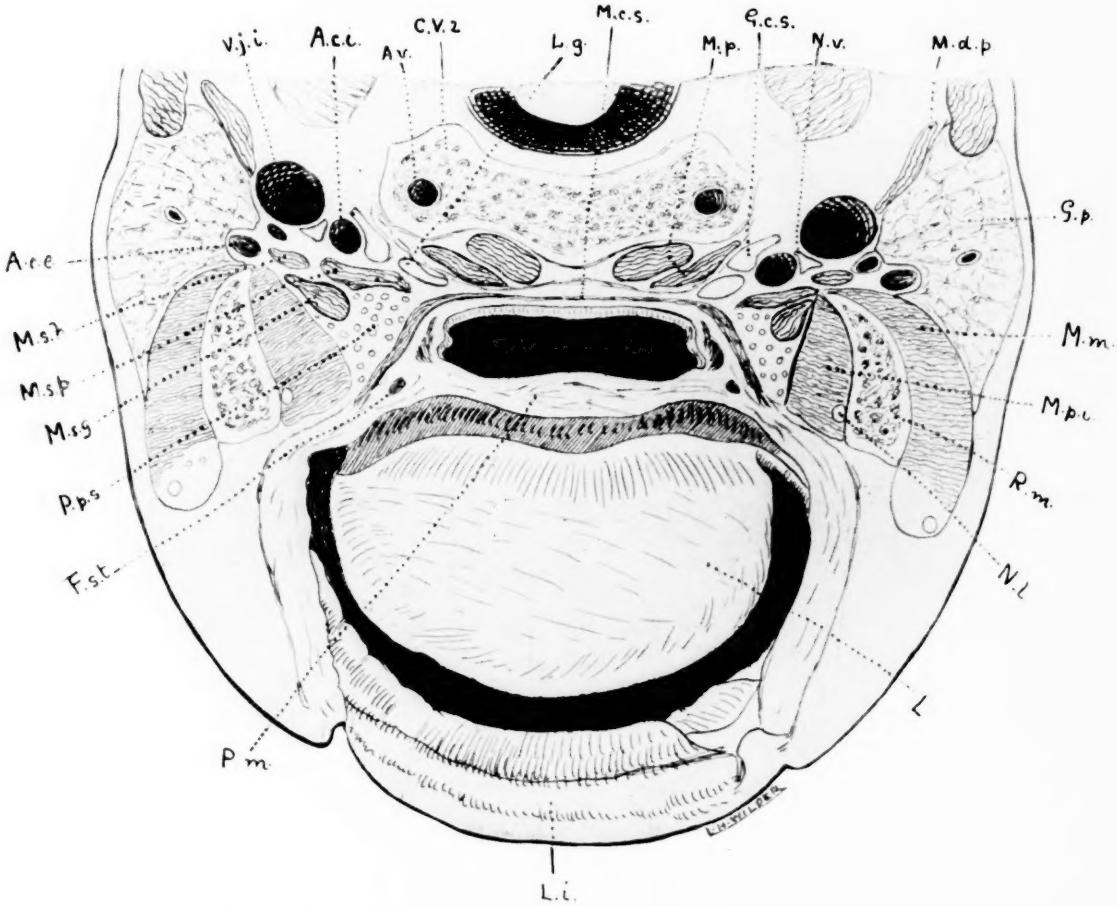

Fig. 5.—Transverse section through the soft palate to show the relation of the fossa supratonsillaris to neighboring structures. Lettering as in Fig. 3. L.g., retropharyngeal lymph gland; P.m., soft palate; C.v.2, second cervical vertebra; F.s.t., supratonsillar fossa (cut).

2. Stöhr: "Zur Physiologie der Tonsillen." Biol. Centlb., 1882, vol. II, No. 12.

3. Zuckerkandl: Quoted by Grober, "Tonsillen als Eintrittspforten für Krankheitserreger," Klin. Jahr., 1905, p. 155.

4. M. Labbé et Levi-Sirugue: "Etude de quelques amygdales hypertrophiées," Bull. de la Soc. Anat. de Paris, 1889, p. 922.

5. Gray and De Costa: Text-book of Anatomy, p. 1213.

it was relatively large and lay on the floor of the fossa, being distributed to the follicular tissue which at times appears in considerable amount.

The branch from the facial comes off near the origin of this artery from the external carotid. It passes under the mandible and internal pterygoid muscle and over or under the styloglossus into the loose fatty tissue of the pterygo-pharyngeal space. At or near the middle of the tonsil the arterial supply, usually a single branch, passes to the buccopharyngeal fascia, which covers the superior constrictor externally and there divides into two branches, a superior and an inferior.[6] These two trunks pass through the superior constrictor muscle and divide on the capsule of the tonsil into numerous branches which pass into the gland along the interfollicular connective tissue septa (Fig. 2).

The pterygo-pharyngeal space appears to me to play an extremely important part in the surgical anatomy of the tonsil. It is of irregular conical form—more or less triangular in cross section. It contains a varying amount of loose fatty areolar tissue in which lie the ascending palatine and tonsillar arteries. It is bounded externally by the internal pterygoid muscle, internally by the pharyngeal wall, posteriorly it communicates with the fatty tissue of the pharyngeal maxillary space adjacent to the postero-lateral angle of the pharynx, in which lie the internal carotid artery, the external carotid artery, the internal jugular vein, with its branches, numerous nerves, and the styloid muscles (Fig. 3). The tonsil rests in the medial side and is, therefore, separated by the fascia and fat in this space from the pterygoid muscle and mandible against which it may be pressed.

It is by no means an uncommon opinion that in operations on the tonsil it is relatively easy to injure the internal carotid artery. This artery at the level of the tonsil lies some distance lateral to the inner angle of the pharynx, about 1.5 cm. from the tonsil, and separated from it by the superior constrictor muscle, by the stylo-pharyngeus muscle and to some extent by the styloglossus muscle. With a space of 1.5 cm. filled with semi-fluid fat and loose connective tissue, it will be apparent that in tonsillectomy the chance of injury to this vessel is very small. Moreover, the ease with which the tonsil can be pulled forward on account of the presence of this loose areolar tissue, leaving the internal carotid *in statu quo*, reduces the danger of injury to a minimum.

The external carotid is usually 2 cm. to the side and posterior to the tonsil. In this position, shielded by the styloid muscles, it is little liable to injury. Occasionally it curves medially, approaching to or entering the pterygo-pharyngeal space, and there giving off the tonsillar artery; but this variation is extremely rare.

There is no disease of the tonsil so common and none which gives the ordinary practitioner so much concern in regard to treatment as the so-called tonsillar abscess. The anatomic relations of the area in which this usually occurs are very definite. From the upper part of the sinus tonsillaris, a supratonsillar fossa (*Recessus palatinus* of Killian) passes into the soft palate, curving superiorly and anteriorly. The upper part of this fossa often appears as a narrow recess whose extremity may lie from 8 to 10 mm., in rare cases from 12 to 15 mm., from the edge of the fossa. The apex of this recess, when of medium size, may be indicated by a point in the soft palate above and slightly anterior to the anterior pillar (Fig. 4). Postmortem examination shows the floor of the recess to be occasionally irregular with bands and constrictions.

In probably 90 per cent. of the cases of tonsillar abscess it is in this locality that the pus forms—in short, it is a supratonsillar or peritonsillar abscess. It is apparent from Figure 4 that it is by no means difficult, even though the tissues are swollen, to locate the usual site of pus formation. The deeper relations of the supratonsillar fossa are seen in Figure 5. From this it is obvious that injury to the internal or external carotid artery by judicious use of a knife in opening this form of abscess is impossible.

This brief account will explain why at times an easy way to evacuate the abscess is by means of a curved probe passed into the supratonsillar fossa.

To what is due the hemorrhage which occurs at times in tonsil operations? Considering the anatomic side of this question, a common cause is injury to the ascending palatine artery. The artery may be of very considerable size and often is in close relation to the bucco-pharyngeal fascia in the tonsillar region of the pterygo-pharyngeal space. Treves[7] quotes a fatal accidental perforation of the ascending pharyngeal artery. Such accidents in tonsillectomy could not result unless the superior constrictor had been cut through. The danger of such an accident is diminished by pulling the tonsil inward.

In operations involving, as they so often do, the anterior and posterior pillars and the plica triangularis; the branches of the lingual artery distributed there may give considerable hemorrhage.

A hemorrhage may occur from injury to a branch of the superior palatine artery. This artery, however, is not likely to be cut in opening a supratonsillar abscess because of its relation to the deeper wall of the abscess cavity.

Another though very rare source of hemorrhage is an abnormal relation of external carotid to the pterygo-pharyngeal space.

Hemorrhage from the tonsillar artery is, of course, the most common cause. In ordinary tonsillectomy the risk of severe hemorrhage is slight, since, as a rule, the vessels contract satisfactorily. In enucleation, however, especially with injury to the superior constrictor muscle, the main tonsillar artery or one of its two primary branches, might easily be cut and give troublesome hemorrhage. A severe hemorrhage from this source is not likely to occur in the most common form of tonsillar abscess.

Hodenpyl[8] has offered this explanation of tonsillar hemorrhages. As the branches of the tonsillar artery penetrate the tonsil they are surrounded by a fibrous sheath from the capsule; this sheath, when the tonsil is cut, contracts and hinders the artery collapsing. Anatomically, this explanation does not appear to me convincing, and I doubt if surgical experience permits us to consider it adequate.

ARE THE TONSILS A PHYLOGENETIC RESIDUE?

Before beginning consideration of the physiology of this organ, one may well consider whether we have here an organ of primary importance or one which may have had some definite purpose in the past history of the race, but which now exists as a phylogenetic residue.

Reasoning from residual organs generally, one may

6. It is interesting to note how the blood supply corresponds to the development of the tonsil in two parts.

7. Treves: "Surgical Anatomy," 1881, p. 117.

8. Hodenpyl: "Faucial Tonsils." Amer. Jour. Med. Sciences, 1891, p. 265.

affirm that were the tonsil a residual organ, we should find some of the lower animals in which it is better developed and more differentiated than in man, with a function not to be gainsaid. We should expect to find an ontogenetic history with early appearance in fetal life, rapid maturity and retrogression. What we do find is that in mammals of all the lymph nodes of the throat the tonsils are the most constant and most differentiated. According to Packard,[9] they appear in the crocodile as pharyngeal folds. It is generally agreed, however, that it is in mammals that one can definitely recognize them as distinct and particular organs.

The tonsil develops in a depression, the sinus tonsillaris, formed in the second branchial cleft. The mode of development varies in different species. Hammar,[10] to whom we are indebted for the most recent and most careful account, distinguishes two varieties:

1. A primary form, seen in such rodents as the rabbit, and in such carnivora as the dog and cat, where a tubercle appears at the oral side of the sinus and both in the sinus and round this tubercle the follicular tissue develops.

2. A secondary form, seen in pig, sheep, cow and in man, in which epithelial processes grow down into the sinus tonsillaris, round which lymph follicles form. The tubercle appears, but atrophies very early, and takes no part in the subsequent development. In its simplest form this is seen in the pig. What must be regarded as a more complex development is apparent in man, the cow and sheep, marked by an intratonsillar fold of tissue which divides the sinus into two recesses.

In man, the tonsillar anlage appears during the third month of fetal life. The remains of the tubercle persist as the plica triangularis. From the two recesses into which the sinus tonsillaris is divided by the intratonsillar fold there grow down epithelial buds which open out and form crypts. In the mesenchyme around the buds adenoid tissue develops and lymphocytes accumulate to form the tonsillar follicles. In short, the human tonsil develops in two parts, which afterward coalesce, and are usually indistinguishable as separate parts.

So far these researches show that there are certain groups of mammals in which the tonsils have reached an advanced stage of development—perhaps in no group as high as in man. From this it would appear that there is in the phylogenetic history not the least support for the hypothesis that in the tonsil we have a vestigeal organ. It is true that they reach maturity early, but in this respect they agree with lymph glands generally, which are more active physiologically in early life.

One might well hope that a comparative study would throw some light on their function. It would appear that in rodents, carnivora and insectivora the tonsils show the simplest type. In this connection it is interesting to note that in some rodents, e. g., rat, mouse and guinea-pig, there is no tonsil, and that no trace of an embryonic anlage has been noted. In ruminants and in man the tonsils are more complex. But from the meager supply of facts on their comparative anatomy it is impossible to divine their function.

THE SECRETION OF THE TONSIL.

In studying the secretion from the tonsil, the first fact that presents itself is that we have here a definite organ actively engaged in the production of lymphocytes. The germ centers of the follicles contain many cells undergoing mitotic division. From these follicles the lymphocytes may pass in one of two ways: 1. Directly into the lymphatic system. 2. Though the mucous membrane into the mouth, either directly or indirectly through the crypts, from which they are expressed during the act of swallowing.

In regard to the first of these, we need only say that, so far as our present knowledge goes, they do not appear to differ in any way from those secreted by other follicular glands; further, that the large and numerous efferent lymphatics point to the large outflow of lymph.

In regard to the secretion into the mouth, a great amount of discussion has taken place. The large majority of cells which pass normally out are lymphocytes, and these form the so-called salivary corpuscles. Commingling with these there are a varying number of polymorphonuclear leucocytes from the blood.

When one examines a little mucus from the surface of the tonsil of any one in good health and with no apparent inflammatory condition of the fauces, there are always found, in addition to the surface epithelium and innumerable micro-organisms, numerous lymphocytes and many polymorphonuclear leucocytes—some of which latter contain bacteria.

It has been asked whether this secretion is a physiologic or a pathologic process. It appears to me that we must regard it as physiologic, though one recognizes that here the line between a physiologic and a pathologic function is hard to define. One is led to this conclusion from its occurrences at all ages; even in embryonic life Stöhr[2] found lymphocytes in tonsillar epithelium. Further, this emigration is a phenomenon common to follicular tissue in all parts of the body.

This fact brings us no nearer to the reason for its occurrence. Hagenschmidt, however, showed that saliva, which contains bacterial products and enzymes, is capable of exciting in leucocytes a positive chemiotactic activity. Metchnikoff[11] believes that this afflux of leucocytes must be regarded as important for the protection of the buccal cavity, and suggests that it is probably due to this attraction of leucocytes and their phagocytic property that lesions of the mouth heal so quickly. He also recognizes the important rôle played by the epithelium of the buccal cavity and the effect of the growth of non-pathogenic organisms on the development of pathogenic. It must be acknowledged that this account of the phagocytic action of the excretion is not altogether satisfactory, because we find a relatively small number of leucocytes containing bacteria. Not only may the living leucocytes play an important part, but the leucocytes, after they have undergone dissolution, may set free a varying amount of cytases which they contain, and communicate bactericidal properties to the saliva.[12]

While one acknowledges the probability that the leucocytes from the tonsil—living or dead—may exert bactericidal properties, at the same time one can not but remember that in the mouth so many processes are still unknown[12] that it may well be the additional function of these lymphocytes to assist in one or other of these processes. Further, there is the possibility that the lymphocytes have already in the tonsil fulfilled partly their physiologic function and that their extravasation may be more of the nature of an excretion than a se-

9. Packard: "Infection Through the Tonsils," Phila. Med. Jour., 1900, April 21.

10. Hammar: "Das Schicksal der zweiten Mundspalte," Arch. f. mikrosk. Anat., 1902, vol. lxi, p. 404.

11. Metchnikoff: "Immunity in Infective Diseases," Cambridge, 1905, p. 428, p. 494.

12. For example, the purpose of sulphocyanid in parotid secretion

cretion—an hypothesis quite in keeping with the anatomic appearance of their passage through the tonsillar epithelium.

Under all these considerations, however, the general belief seems to be that in the tonsil we have a definite organ, part of a ring of follicular tissue which surrounds the upper part of the alimentary canal at a point which, from its location and structure, is very open to disturbance and infection, whose physiologic function is connected with active processes at the beginning of the alimentary tract. One function may be to act as a defensive barrier against micro-organisms and, it may be, against other injurious bodies; and in these processes the lymphocytes and leucocytes may exert no unimportant part.

A question which appears to me to have received too little consideration is this: What effect have diseases which demand increased leucocytosis within the body on tonsillar exudation into the mouth and what is the relation of this to the disturbances of buccal and gastric activity which occur in these diseases?

It is well for us at all times to consider the physiologic aspect of problems which present themselves to us, even though we can not give a complete and satisfactory explanation. We are too apt so to magnify the pathologic importance as to diminish the physiologic consideration. It is well to give the tonsil some thought, not as a frequent seat of inflammatory trouble, and therefore a constant source of danger and a menace to the individual, but as part of a group of active glands placed in an area susceptible to disease. Such a view does not preclude the possible necessity for the removal of a tonsil should it be diseased. If this gland become the center of recurring inflammatory attacks, if its mucous covering is obviously a nidus for micro-organisms, if its size is hurtful to the development of the individual, if, in short, it is obviously no longer physiologic but pathologic, as a pathologic structure it requires appropriate treatment.

A CONSIDERATION OF PRURIGO, PRURITUS, AND SOME COMMON ITCHING DERMATOSES.*

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The object of this paper is to consider the points of interest in some of the commoner diseases of the skin, which are accompanied by the sensation of itching, with special reference to their differential diagnosis.

Prurigo is a rare disease, and the only reason for including it here is properly to place it and practically eliminate it. A disease productive of itching of varying intensity is one which sooner or later compels its host to seek for relief. Patients may carry for years without complaint cutaneous eruptions of different kinds that are not productive of physical discomfort, especially when these manifestations are hidden beneath the clothing; but when the peace of mind is disturbed by constant or intermittent suffering incident to the subjective symptom, itching, the physician is sought in the hope of relief.

* Read before the Aux Plaines Branch of the Chicago Medical Society, March 23, 1906.

* In the preparation of this article the following text-books have been consulted, in addition to special articles, for which due credit is given in the text: Hebra, Kaposi, Hyde and Montgomery, Stelwagon, Crocker, Osler; Morrow's "System of Dermatology"; Allbutt's "System of Medicine."

TERMS DEFINED.

The terms prurigo, pruritus and itching have been used so often interchangeably that they would seem synonymous.

Prurigo is now restricted to designate a disease first described by the master dermatologist, Hebra; pruritus, pruritus essentialis (Bronson), or pruritus cutaneus, to designate a disease which is a sensory neurosis. Itching is a prominent feature of the former disease and the only essential symptom of the latter. It occurs as a prominent symptom also in many cutaneous affections, but in all of these is secondary to cutaneous lesions. Among other such diseases are scabies, pediculosis, eczema, urticaria, etc. It is not to the lesional itching diseases, such as eczema, urticaria, etc., that reference is to be made, for usually these are easily recognized. Scabies, however, will be considered, for evident reasons, later.

PRURIGO.

Prurigo is a chronic and usually incurable disease. It is rare in America, but is common in Austria, and in varying degree in Germany and England. It begins, as a rule, in infancy, but at times has been noted to begin from the fifteenth to the thirty-fifth year of life. Though, as a rule, it remains throughout life, some patients have recovered, and the disease may be modified by treatment. It is always accompanied by intense itching. The earliest lesions are urticarial, after which the classical lesion appears, which is a colorless or slightly reddened papule. In time the skin becomes harsh, dry, thickened, excoriated, crust-covered and pigmented. Pustules and superficial ulcerations occur. At a glance one sees that the major part of these lesions are due to the scratching. The sites of predilection are the extensor surfaces of the limbs, and to a less degree the abdomen, buttocks, chest, and occasionally the face. Inguinal and axillary adenopathy occurs. The former glands often become very large. The prurigo mitis of Willan presents the same, but a less intense, picture.

The essential cause is unknown, but it is commonly classed as a neurosis. Poverty and insanitary conditions predispose, and the male sex is more often attacked. Although examples of this disease are occasionally seen here, it is so rare that a more detailed description is not necessary, this much being given merely for its identification.

PRURITUS.

In cutaneous medicine to-day, pruritus signifies a disease, not a symptom. It is a sensory neurosis, in which itching is the sole essential symptom. Other symptoms are usually present, however, and are evidenced locally by the torn and injured skin, and systemically by varying degrees of malnutrition and lowering of the vitality of the patient through loss of rest. It is usual to classify pruritus into two varieties, general and local, and with propriety a seasonal variety, pruritus hiemalis, could be added.

General Pruritus Essentialis.—General pruritus occurs usually in adults, a common example being the so-called senile pruritus. Although all parts of the cutaneous surface are liable to be attacked, it rarely attacks the whole area simultaneously, but moves about from place to place. The itching may be intense; is worse at night, but occurs more or less throughout the day, the morning hours being the least uncomfortable. The intensity of discomfort is sometimes relieved only by producing sufficient trauma to bring blood, and thus change the sensation to one of burning and smarting. The paroxysms are of varying duration, and, while early in

the disorder no objective symptoms are present, all those belonging to traumatic dermatitis may be added later. Many of these patients restrain themselves and avoid scratching while awake, but during sleep inflict serious damage on their skins.

Local Pruritus Essentialis.—In local pruritus the areas attacked are the anal, vulvar and scrotal regions, and occasionally the palms, face and scalp. Pruritus vulvæ may affect the labia, vagina and clitoris. The whole area or any part of it may be involved. The disorder may extend over the perineum and surround the anal region. In men the scrotal or anal region, alone or in combination with the perineum, may be attacked. The skin about the anus presents a whitish, sodden appearance, with increase in depth of the folds, in which there collects a foul-smelling secretion. The scrotum also becomes thickened and soggy, and may even become vitiliginous. Frequently the intensity of the itching in these cases can not be described. Naturally, after a time, local inflammatory symptoms develop, due to the scratching and rubbing, which for a time might render the diagnosis difficult as to whether the case was originally a pruritus or an eczema. The methods of obtaining relief employed by some of these victims of the intense suffering testify strongly to its severity. In women the intense itching is irresistible, and the effect produced by the rubbing is detrimental not only physically, but morally. Not once or twice, but several times patients have come under observation whose suffering for years with such a pruritus have driven them to contemplate self-destruction to end the torture.

The palmar cases of local pruritus are rare, and when present, for anatomic reasons, are not accompanied by marked secondary lesions. The scalp and face cases are not common, but are seen occasionally. Recently two cases occurred in the practice of Drs. Hyde and Montgomery in which a local pruritus, limited to the nose, cheeks and chin, had existed for several years. In each case moderate traumatic dermatitis accompanied the disorder. At times one small area may be noted over the course of a special nerve. Crocker reported one such case, limited to the course of the sciatic nerve. With one of the members of this society, I saw such a case, in which the pruritus occurred in a narrow band, which extended from the vulva along the entire length of the leg, terminating at the heel.

Etiology.—In every case of pruritus a probable cause must be diligently sought. While pruritus cutaneous is dignified by a name and described as a disease *per se*, it is essentially merely a symptom of some disturbance, local or more or less general, of the nervous system: and this disturbance is further secondary to many and varied internal and local organic and functional diseases, and even to increased or decreased physiologic activity, exhibited in pregnancy and the menopause, and finally to abnormal mental states. Bronson[1] states that hyperesthesia is the chief predisposing cause in all cases. This hyperesthesia may be acquired by long-continued irritation of the cutaneous nerves in various itching dermatoses, such as eczema, lichen planus, scabies, etc., or it may be inherited.

In casting about for light on the cause of a general or local pruritus, one must make an extensive examination of the patient. Functional or organic disease of the stomach, intestines (including the rectum), liver, kidneys, bladder, urethra, uterus, ovaries, etc., may be causative. The intense itching accompanying jaundice is well known to all practitioners of medicine. This often appears only when the icterus is subsiding. An unaccountable pruritus may be the earliest symptom of an internal carcinoma. Gastric carcinoma has been known to produce intense general pruritus. Pregnancy is often accompanied by local or more or less generalized pruritus. At the menopause in women, when the organs of reproduction are undergoing organic changes, pruritus occurs; and may be due to reflex local irritation or to the changes incident to the general effect these changes produce on the nervous system as a whole. Among the more common general diseases concerned in the production of pruritus are tuberculosis, malaria, various forms of nephritis, diabetes, mellitis, gout, etc.

Common among local causes of pruritus is constipation. The hard fecal matter lying in the rectum sets up a reflex irritation, as do also varicose veins and ascarides in this locality. Fistulæ, fissures and local hyperidrosis are causative. In the genito-urinary tract, vesical calculi, polypi and stricture may be effective.

Reflexly, general pruritus may be caused by a local pruritus. For example, severe generalized cases have occurred in people the subjects of an anal pruritus, the whole disorder clearing up by treating simply the local disease.

At times, psychic disturbances produce pruritus. This may be seen when a class of medical students or nurses are suddenly attacked by real pruritus when viewing a patient covered with pediculi. Another example of this form occurs in patients who believe themselves to be infected with certain parasites. These patients will declare that they not only feel the parasites, but see them emerging from the skin, and are able to catch quantities of them. The pruritus in these cases is often severe.

The degenerative changes occurring in the skin of the aged are a cause of senile pruritus, but other factors are also active here, such as deficient excretion, and various changes in the internal organs incident to age. Neurotic cases of pruritus occur in such diseases as hysteria and hypochondriasis.

Pruritus Hiemalis (Duhring).—This form of cutaneous pruritus might be classed as a seasonal variety, as it occurs only during the cold weather. It is properly classed with the neuroses. Special stress is laid on it here, because in this climate it is a fairly common affection and is not generally credited with the importance its frequent occurrence demands, and because of its likelihood to be mistaken for other itching diseases, especially scabies and other equally distinct diseases with demonstrable etiologic factors. It was first described by Duhring[2] in 1874, and has since been studied and carefully reported by many competent observers, such as Hutchinson,[3] Hyde,[4] Corlett,[5] and others. The disorder occurs in the autumn and winter, but clears up with the approach of warm weather. The chief symptom is itching, which is worse usually on retiring to bed. The skin in these cases is usually harsh and dry, and after a time presents lesions, induced by the rubbing and scratching to which it is subjected; namely, excoriations, broken stumps of hair, blood crusts, and enlarged follicles. It is due to changes incident to the cold weather, and is often aggravated by the coarse

1. Bronson, E. Bennett: "The Etiology of Itching," Medical Record, Oct. 24, 1891.

2. Duhring: Phila. Med. Times, Jan. 10, 1874.
3. Hutchinson: British Med. Jour., 1875, ii, p. 773.
4. Hyde: Chicago Med. Jour. and Examiner, March, 1885, and February, 1886.
5. Corlett: Jour. of Cut. Dis., 1891, p. 41.

woolens worn at this season, though it occurs also in those whose personal habits as to clothing and cleanliness leave nothing to be desired. At times, several members of a family are attacked simultaneously or successively, which fact has led often to the erroneous belief that it is contagious. The lesions are commonly situated on the antero-internal aspect of the thighs, around the joints and to a lesser degree on the forearms and other parts of the body, such as the waist and other parts where pressure is exerted by the clothing.

Etiology: From a study of his cases with a review of others, Corlett[5] concludes that (1) the state of the general health plays no appreciable part in the production of the disease; that (2) though irritation of rough clothing aggravates the disease, it is not, *per se*, capable of producing it; (3) that meteorologic conditions are most important, the most potent combination being low temperature, low humidity, and a northwest wind, increased velocity meaning increased symptoms. This combination inducing evaporation and the low temperature reducing glandular activity to a minimum, the result is a harsh skin and irritation of the peripheral nerves, inducing the disease; (4) that it may be associated with other cutaneous neuroses.

Bath pruritus, described by Stelwagon, occurs in some people immediately following a bath. The sensations are itching or burning of varying intensity. It is usually located on the lower part of the body, from the hips down, but occasionally involves the arms also. It lasts from a few moments to an hour or so, then gradually subsides. It attacks adult males more frequently, and those who habitually have an irritable, dry skin. The temperature of the water appears to have little to do with the cases, as any temperature produces the same results.

SCABIES.

Owing to the markedly increased prevalence of scabies in this region during the past two years, it seems justifiable to lay some stress on this disorder as now seen.

In March, 1905, Dr. Hyde[6] published the observations of himself and associates on this subject, in which he demonstrated this increase. He attributes it to two main factors: first, that during the preceding year the immigration to this country from countries abundantly supplied with scabies exceeded that of past years; and, secondly, to the massing together of large numbers of people in the west, due to the exposition at St. Louis. The increase is noticeable in private as well as public practice. It is not at all common for whole families to appear at the public clinics affected with the disorder. In the public clinic of the Chicago Clinical School, scabies represented 10 per cent. of the total cases treated in 1903, 11 per cent. in 1904, and 16 per cent. in 1905; a fact which demonstrated the marked increase here. In private practice, the ratio of increase is as great or greater.

In December, 1904, Dr. E. Wood Ruggles[7] called attention to this fact in a paper in which he calls the increase an epidemic of scabies in the United States. The classical cases that one sees in clinics and hospitals abroad are not evident here; and it is important to recognize the fact that the disease attacks people in the best stations of life, where anything bordering to filth is not to be thought of.

As Dr. Hyde pointed out, the lesions may be few, and very careful search must be made to identify the disorder positively. In place of an enormous number of typical lesions, vesicles, vesico-pustules, papules, furrows, crusts, excoriations, etc., in the usual places—on the hands, between the fingers, around the wrists, about the axillæ and breasts of women, the nates of children, and the penis and scrotum of men—only a few lesions can be found, half a dozen furrows, not well marked, a few vesicles and papules, and some staining, but still accompanied by the usual intense itching, especially on retiring. The fact must be recognized, however, that very many more moderately severe cases of scabies are now appearing than formerly.

Two or three important points, which have a bearing on diagnosis and treatment, have been impressed in this connection: First, a number of cases are seen in which marked irritability of the skin has been induced by over-treatment, which makes it appear that the disease, instead of yielding, is increasing in severity, a dermatitis of varying intensity being present, accompanied by itching and many lesions, all of which subside on the withdrawal of the energetic treatment and the institution of a mild one in its place. Secondly, in some cases a form of dermatitis of moderate degree, accompanied by vesicle formation and other lesions simulating scabies, will remain for some time after the original disease has been eradicated, this, too, usually in private cases; and if the patient is aware of the original diagnosis, he is tormented by the thought that he is still the host of the dreaded *Acarus scabiei.* This cutaneous irritability is due either to the long-continued irritation of the nerve endings by the original disease, or to the treatment pursued for its relief, or to both, and is productive of itching, often of severe grades. When the skin in these cases is scratched or rubbed, vesicles and other lesions are induced, which resemble scabies but are not identical, as no furrows can be found, nor can the essential cause, the *Acarus scabiei,* be demonstrated. The vesicles, too, differ, in that they are not located at one end of the furrow, as in scabies. These cases have yielded best to complete protective dressings in the weakened areas.

DIFFERENTIAL DIAGNOSIS.

Under this heading, it is not necessary to consider at all the itching diseases whose symptomatology aside from itching is characteristic. Eczema, lichen planus, urticaria, dermatitis herpetiformis, and the like, are all sufficiently characteristic and rarely cause any confusion with the groups considered in this paper; so also are the local varieties, such as pruritus vulvæ, etc. They are described here and treatment outlined on account of their more or less common occurrence and obstinate character, as well as to complete the description of the term pruritus.

For the past twenty years, including the present winter, perhaps the commonest question presented to the dermatologist for solution by the general practitioner has been one concerning the diagnosis of some seemingly epidemic itching disease, which did not correspond apparently to the usual descriptions given for diseases with which they are familiar. In 1885-86, Dr. Hyde published two articles on winter pruritus, in which many letters from practitioners of medicine were quoted showing the confusion and perplexity existing on this subject. Under the titles "prairie itch," "Texas mange," "Ohio scratches," "swamp itch," "lumberman's itch," etc., these disorders have been described, and one sees

6. Hyde: The Amer. Jour. of the Medical Sciences, March, 1905.

7. Ruggles, E. Wood: Buffalo Med. Jour., December, 1904.

that geographical distribution had to do with the naming. It is generally conceded by the men doing most work with these diseases that the bulk of the cases variously named, belong in one of three categories—pruritus essentialis, pruritus hiemalis, or scabies. So it is with these that we are concerned in differential diagnosis.

Itching is the prominent symptom of all, and in all the itching is worse at night, either during disrobing or shortly after retiring.

Scabies and pruritus hiemalis appear among comparatively large numbers of people at about the same time; and as several members of one family may be attacked, both diseases at first glance appear contagious. But on closer examination it may be demonstrated that in scabies a variable length of time elapses between exposure to the disease and its subsequent development. A child brings the disease from school; shortly afterward, the person with whom this child sleeps will develop the disease, and so on, until perhaps the whole family, including the parents, are successively attacked. When very close association exists in families, an almost simultaneous development may occur; but still the time factor is of value. On the other hand, pruritus hiemalis is apt to develop more nearly simultaneously, as its etiologic factor affects all at the same time. Differences in susceptibility must here be considered, but it is true that the ones susceptible are apt to be attacked at the same time.

Lesional Points.—If sufficiently careful search be made in scabies, the following points may be found and are of value in the order named: first, the *Acarus scabiei;* secondly, the coniculus or gallery; thirdly, the vesicle at one end of the furrow; all of which are absent in the majority of cases of the other two disorders; and after these all the lesions due to scratching, such as papules, pustules, crusts, excoriations, etc. In pruritus hiemalis, a harsh, dry skin, with reddened follicular papules and broken stumps of hair, is important. In pruritus essentials (general or local) only the lesions due to trauma are present.

Regional Points.—If the lesions are located on the hands, between the fingers, and on the penis, scabies is the only solution. Pruritus essentialis and pruritus hiemalis do not attack these regions. Scabies selects by choice, in addition the area about the wrists, the axillæ and breasts of women, and the buttocks in children. Pruritus hiemalis selects chiefly and most markedly the antero-internal surface of the thighs, the anterior surface of the legs, and, to a lesser degree, the arms, etc. Pruritus essentialis is variable as to regions, as it attacks first one and then another, moving about from area to area.

Scabies and pruritus essentialis may occur at any season; pruritus hiemalis only during cold weather. An epidemic in July could only be scabies; one in November might be either. In isolated or single cases, all elements must be considered—season, lesions, and regions of the body involved. The fact that pediculi, fleas, human bugs or bedbugs may induce severe itching should be borne in mind. The long linear excoriations about the shoulders and back and other points of pressure on the trunk, with the small puncta where the *Pediculus vestementorum* obtained his meal from his temporary host, are characteristic of pediculosis corporis. The itching about the pubic region, with the easily demonstrable *Pediculus pubis* and its ova on the hair, are sufficient for this variety; while the enlarged suboccipital glands, the pus-infected lesions in the occipital region of the scalp, and the *Pediculus capitis* and its ova here are sufficient to settle the question.

The human bug attacks the extremities earliest about the ankles, as these areas are nearest his abode, and later other parts of the body. The lesion produced in procuring his meal is apt to be hemorrhagic. The flea, in susceptible people, induces urticarial lesions, in the center of which a punctum is evident. These wheals may occur in lines, being produced as he passes and feeds along. All of these local causes of pruritus are not difficult of recognition, but should be borne in mind, especially in isolated or doubtful cases.

TREATMENT.

Under this heading I shall consider only the treatment positively proved of value in pruritus, deeming it unnecessary to consider that of prurigo and only mentioning that of scabies.

Scabies.—Sulphur stands at the head of the list of remedial agents in the treatment of scabies, but on account of its disagreeable odor when used in an ointment, and its liability to produce dermatitis its otherwise universal use is somewhat restricted. It may be employed in the following formula:

℞.	Sulphuris sublimat.	℥ii-℥i	8-30
	Adipis benzoinat		
	Unguenti petrolat., āā	℥iss	45

M. Ft. unguentum. To overcome the odor balsam of Peru may be added in the same quantity as the sulphur.

Karosi recommends the following, which is reliable and has no odor and is not so likely to irritate:

℞.	Naphthol	℥iv	15
	Cretæ preparatæ	℥iiss	10
	Saponis mollis	℥iss	45
	Adipis	℥iii	90

M. Ft. unguentum.

In any case the patient should begin the treatment with a warm bath of about thirty minutes' duration, during which the surface is thoroughly shampooed with either green, or castile soap. In this way the furrows are opened and allow the medicament to come in closer contact with the active cause. The ointment should be used daily for three or six days, which is usually sufficient to eradicate all activity of the disorder. Should a few areas escape they may be treated later with the ointment. It is necessary to sterilize the under garments and bed clothing by boiling and the outer clothing by baking to prevent reinfection of the patient. Sherwell[8] recommends using dry powdered sulphur, rubbed lightly over the surface after bathing, once in two or three days changing the under garments and bed linen each time, also having the sulphur sprinkled between the sheets. This method is of distinct value in many cases, is clean and requires one or two weeks to eradicate the disease. One or the other of these three simple formulæ will accomplish the result in all cases. The dermatitis arising from the sulphur in ointment form will soon clear up on suspension of the drug, and using in its place a simple dusting powder, such as the compound stearate of zinc.

Pruritus Essentialis.—The treatment of any case of pruritus is simple if the etiology is clear. In many cases this can not be absolutely determined, and then recourse to some of the general rules laid down must be resorted to. There are some general principles of treatment, both as to internal and local management, which are of great value, both in mitigating and completely relieving the disease. As a rule constitutional

8. Sherwell: Jour. Cutan. Dis., 1899, p. 494.

treatment is unsatisfactory unless especially directed to some discoverable etiologic factor, such as diabetes, rheumatism, or the various other hepatic and renal diseases concerned in its production. Among other constitutional remedies should be mentioned cannabis Indica, gelsemium, pilocarpin, belladonna, quinin, the salicylates, (acetyl-salicylic acid) phenacetin, antipyrin, chloral, sulphonal, arsenic, and chlorid of calcium, as recommended by Savill.[9] Local remedial agents are very important, and if properly selected and applied are of great value. The best of these are carbolic acid in oil or lotion; thymol, or menthol, 1 to 4 per cent. in an ointment; resorcin, ½ to 2 per cent. in lotion; camphor in an ointment or dusting powder; chloral in an ointment or lotion and the tars; also hot water, electricity and radiotherapy. These local remedies may be used in the following combinations:

R.	Acidi carbol.	3i-iii	3-12
	Aquæ calcis		
	Olei olivæ, āā	℥viii	240
Or:			
R.	Acidi carbol.	3ss-iss	2-6
	Pulv. amyl.	3ii	8
	Pulv. zinc. oxid.	3iii	12
	Aquæ calcis	℥iv	120
	Aquæ rosæ q. s. ad	℥xvi	480
Or:			
R.	Thymol vel menthol	gr. v-xxi	0.33-1.33
	Adipis lanæ		
	Unguenti petrolati, āā	℥ss	15
Or:			
R.	Resorcin	gr. xv-3i	1-5
	Glycerini	3iss	6
	Spts. vin. rect. q. s. ad	℥viii	240
Or:			
R.	Camphor or chlorali	3ss-i	2-4
	Unguenti petrolat.	3i	30
Or, Anderson's dusting powder:			
R.	Pulv. camphor	3iss	6
	Pulv. amyl.	3viii	32
	Pulv. zinc. oxid.	3iv	16
Or, Wilkinson's salve:			
R.	Olei rusci (birch tar)	3ii	8
	Sulphuris sublimat.	3ii	8
	Cretæ preparatæ	gr. liii	3.5
	Saponis viridi		
	Adipis, āā	℥ss	15

In all cases, free elimination should be encouraged by salines and other laxatives, with abundant water drinking and perhaps other diuretics. Cotton, linen, or silk should be worn next to the skin. The diet should be simple and non-irritating, and, as a rule, tobacco and alcohol should be interdicted.

In the generalized variety known as senile pruritus, a large number of the measures may have to be resorted to, for the reason that these cases are often intractable and may be absolutely incurable. In a private communication Dr. F. H. Montgomery recommends in these cases general massage once or twice weekly with a bland oil or lanolin to promote general nutrition, the rubbing being done in the direction of the return venous flow. Other cases of generalized pruritus are amenable to treatment by making sufficient search for and removal of the cause, combined with the measures outlined above. The following case illustrates the necessity of careful search in these cases for an exciting cause:

The patient, a man aged 48 years, had been the subject of general pruritus for several months, and recently was so tormented with the intolerable itching that his general health was impaired and his nervous system was becoming wrecked. An examination of his urine, together with the several internal organs, revealed nothing abnormal. He had used various measures without relief. In his sleep, or when partially asleep, he would tear his skin until the blood would flow freely.

Radiotherapy was recommended, and during the treatment it was found that the patient had suffered with anal pruritus for several years. This was immediately given thorough attention, with the result that in two weeks this condition was relieved, and with it all the generalized pruritus without special treatment, the case evidently being a reflex sympathetic general pruritus caused by the local condition.

The importance of having means at our disposal to combat the local varieties of pruritus, especially anal and vulvar, can be attested by any one who has had charge of a severe case. They are often chronic, and have had almost every known antipruritic used, with only temporary relief; and the point here of greatest importance is the skill with which we use the means at our command. Many cases can be relieved completely by using thoroughly the same remedial agents that were used before and failed. Some of the very best of these agents become discredited because the patient either used them improperly or insufficiently. It is not sufficient to examine the patient and write a prescription for an ointment, and say: "Get it compounded and apply it twice daily." With such directions, the chances are that the ointment will be in apposition with the affected parts a few moments only, instead of hours, as intended.

An outline for the treatment of a case of anal pruritus, for example, might be as follows: The case is severe, with no discoverable general etiologic factor. Locally, there will be evidence of traumatic dermatitis. Before retiring at night the patient is instructed to bathe the part with hot oatmeal water, as hot as can be borne, for from fifteen to thirty minutes. The part is then dried thoroughly and the dressings are thoroughly saturated with a lotion containing equal parts of oleum olivæ and liquor calcis, to which 1 per cent. of carbolic acid has been added. These dressings are placed with care so as to cover the whole area, and are held in place over night with a T bandage. In the morning the parts are cleansed with more of the same oil, and then for the day a strip of surgeon's absorbent cotton, thoroughly covered with dusting powder, such as stearate of zinc, is inserted between the nates. This may be applied fresh, if for any reason it becomes displaced. This procedure is intended to keep the skin surfaces apart. After a few days of this treatment, an ointment containing a small amount of tar may be substituted for the oil at night, continuing the powder during the daytime. A convenient and safe procedure is to give the patient two ointments—one, such as Wilkinson's salve, containing tar, the other a comparatively neutral one—instructing him to mix one part of the tarry, one with ten parts of the other the first night and apply it on a linen cloth, being sure to have the ointment cover the affected area thoroughly, and keeping it in place with the T bandage as before. Each evening more of the tar may be added until the desired result is accomplished. The patient is cautioned that, should irritation from the ointment arise, he is to reduce the amount of tar or suspend it entirely for a time. After a time, all evidence of the disease having disappeared, active treatment may be suspended; but strict cleanliness, with use of the powder, should be kept up for a long period. The remedial agents of especial value in anal pruritus are carbolic acid, menthol, hot water, the tars, and at times cocain, the latter with caution. Fissures about the

9. Savill, Thos. D.: "Pathology of Itching, and Its Treatment by Large Doses of Calcium Chloride, with Illustrative Cases," London Lancet, August, 1896.

anus may be penciled with silver nitrate or treated with bichlorid, or by means of the actual cautery.

Some surgeons believe most cases are due to fissure, and that these fissures may be well within the rectum, and hence require search for their location. It is true that they play a part in the production of this disorder, and should always either be excluded or eradicated. Fistulæ, hemorrhoids, etc., should be given their appropriate treatment, as should also the tags often seen in these cases, especially after various operations for hemorrhoids, etc. If after these various methods have been carefully used recurrences continue, radiotherapy will be of greatest value. During the past five years it has given me most happy results in cases that apparently resisted all other means of treatment.

In vulvar pruritus, the plan of treatment is similar to that outlined above. Here hot water, carbolic acid in ½ to 2 per cent. solutions, dilute hydrocyanic acid in 1 to 2 per cent. lotions, are of great value. The dressing must extend up a short distance into the vagina and be kept thoroughly in place by means of the T bandage. The cause of any leucorrhea must be sought and removed, as well as other etiologic factors. Bichlorid of mercury in solution is often of value also; and, finally, radiotherapy may be resorted to if necessary. Whichever method is employed, minute detailed instructions should be given and carried out. In severe cases, rest in bed for two weeks, with restricted diet and with the treatment detailed above, accomplishes more than can be done in a very much longer time with the patient up and about. Scrotal and perineal pruritus may be managed similarly to the above.

Treatment of Pruritus Hiemalis:—As these cases are due entirely to lowered temperature, it is essential to overcome the change, so far as possible, by appropriate clothing. Cotton should be worn next to the skin, but extra clothing can be worn over this. Corlett advises resorcin as a local application, and believes internal treatment is of no value. Menthol and carbolic acid are the two chief local antipruritics employed. Bronson advises bandaging the limbs and smearing them with a 5 per cent. salol superfatted soap. Warm weather is always curative.

THE TREATMENT OF LOBAR PNEUMONIA.

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Pneumonia is a self-limited disease and runs its course uninfluenced in any way by medicine. It can neither be aborted nor cut short by any known means at our command. Even under the most unfavorable circumstances it will terminate abruptly and naturally without a dose of medicine having been administered. So also under the favoring circumstances of good nursing and careful diet the experience of many physicians in different lands has shown that pneumonia runs its course in a definite time, aborting sometimes spontaneously on the third or fifth day, or continuing until the tenth or twelfth. We have then no specific treatment for pneumonia. The practitioner may bear in mind that the patient is more often damaged than helped by the promiscuous drugging which is still only too prevalent. In cases of moderate severity a purely expectant plan may be followed—keeping the bowels open, regulating the diet and, if necessary, giving a Dover powder at night to procure sleep. In severer cases a symptomatic plan of treatment should be pursued, meeting the indications as they arise (Osler).

In spite of the above clear-cut statement by one of the greatest physicians of modern times many physicians continue to drug their patients in this disease to their detriment and this can be proven by glancing over the medical journals for the last few years. In them will be found almost every combination of drugs recommended as a specific for this trouble. This fact alone proves that we know of no drug that is curative of pneumonia.

While no drug is curative, strictly speaking, we possess the means of saving many patients who would certainly die if left alone to Nature. As Dr. Hare says: "In this disease the doctor should be a watchman all the time and only a therapeutist when necessity arises." Pneumonia is a condition which demands that the physician have a thorough knowledge of the possibilities of medication, but at the same time he must keep clearly in mind the pathology of the condition and the physiological actions of his remedies. A drug which apparently may be indicated on account of one of its actions, may produce a death blow by another effect. Here ignorance is criminal, for while cooling the fevered patient's brow it stabs him in the heart, or vasomotor system. The number of patients who die annually from too much drugging can never be estimated.

GENERAL MANAGEMENT.

A patient suffering from pneumonia should be put to bed and kept strictly in the recumbent posture until several days after the crisis. He should be clothed in a light flannel gown and the bed-pan should be used. Food should be administered in such a way that the patient will not have to sit up to take his nourishment. The sick room should be bright and airy, with plenty of sunshine and fresh air. It should be well ventilated. There will be no danger of the patient taking "cold," as the high temperature prevents this. The patient should be isolated, both to prevent infection of others and because he needs mental, as well as physical, rest. Baruch says: "Plenty of oxygen, in the way of fresh air, early in the disease will do away with the necessity of administering oxygen later." He also suggests administering about four ounces of cold water frequently. This has an excellent effect on the heart, kidneys, skin and nervous system.

As a routine procedure it is well to administer from 5 to 10 gr. calomel, to be followed by a saline if a good, large action of the bowels is not produced by the mercurial.

The diet should consist principally of milk, broths and egg-water, liquid-beef preparations being added to suit the case. As this disease is a depressing one, the diet should be of the most nutritious sort and easily digested. Over-feeding should be avoided as much as under-feeding, for a distended stomach, or bowel, may easily interfere with an already over-taxed heart. Good feeding, absolute rest during the waking hours, a proper amount of sleep, and keeping the bowels open, are generally the points on which success or failure depends. To summarize: Put the patient to bed in a well-lighted and well-ventilated room. Keep him at rest, both mentally and physically. Give plenty of cold water at brief stated intervals. Feed him light, but nutritious diet, and keep his bowels open. This is all the treatment that a large number of patients really need. Its simplicity should appeal to all who realize that pneumonia is a self-limited disease. Those who are in the habit of drugging their patients should try it. I am sure they will find that they have been attributing a power to certain drugs that these do not possess.

SYMPTOMATIC TREATMENT.

Probably the first symptom that attracts our therapeutic attention is pain. This is often sharp and severe. It is best relieved by a hypodermatic injection of morphin 1/8 gr. Frequently a brisk counterirritation applied over the seat of pain gives relief. Strapping the chest with adhesive plaster not only relieves pain but puts the part at rest. I have found that the local application of a mixture containing methyl. salicylate, iodin and camphor liniments, acts well and perhaps, has some good influence over the disease.[1] The prescription I use is as follows:

R.	Iodini (crystals)	gr. viii	50
	Methyl salicylatis	ʒss	15|00
	Liniminti camphoræ, q. s.	ʒii	60|00

M. Sig.: Apply over chest three times daily. Cover with oiled silk.

I do not countenance the use of poultices. They can not possibly do any good except in relieving pain, and may do a great deal of harm.

Fever.—Unless the temperature rises above 104 F. it should be left severely alone. This rise is not only without danger, but is actually beneficial; it is Nature's effort to control the disease. There is nothing more pernicious than the constant attacking of a pneumonic temperature with coal-tar derivatives or arterial sedatives. Dr. Douglas Powell has demonstrated that pneumococci grow to perfection at the normal temperature of the body, but not at all at a temperature of 104. Besides, fever produces leucocytosis and, as is well known, cases without an increase in leucocytes are almost always fatal. So that the patient's general condition and not the temperature alone must be the guide in the use of antipyretic measures.

Some patients bear a much lower temperature than 104 very badly. In these cases antipyretic drugs should be used, if at all, for their effect on the nervous system alone. The application of cold is the best means of reducing temperature. Large ice-bags may be applied to the chest and head, or ice-cold compresses may be applied to the chest, as advocated by Baruch. In some cases, the sponge bath acts well, and some writers boldly declare that the temperature of pneumonia when excessive, should be treated by the cold tub bath. While this latter procedure may be satisfactory in hospital practice, it can not be generally recommended for various and obvious reasons. The occasional use of coal tar remedies in small doses, carefully guarded, is not objectionable. The fever of pneumonia, it must be emphasized, is not a symptom that demands treatment, unless it goes over 104 F., or unless the patient is showing a marked intolerance to a febrile rise. Under no circumstances, should an attempt be made to reduce the temperature to normal. Generally reduction of a degree or two is all that is necessary, and a host of practitioners are having forced on them the fact that hydrotherapy is the best and the safest way to reduce the fever of pneumonia when it demands attention.

Cardiac Failure.—The use of stimulants in pneumonia requires very careful attention. There are many patients who require no stimulation at all. The practice of giving every patient suffering from pneumonia whiskey, digitalis or strychnin, is a therapeutic outrage. There are times when these patients need stimulants, but the drug to be used and the time to use it should be selected with care. "If the pulse goes over 120, if the first sound becomes weak, if the pulmonary second sound loses its accentuation, or if marked nervous symptoms appear, then a stimulant is indicated." (Anders).

Alcohol is not only a stimulant but a food, as well. It increases the force of the heart by directly stimulating it (Wood), removes, to a certain extent, the peripheral resistance and hastens the movement of the blood current. In other words, it restores a disturbed equilibrium and overcomes passive congestions. There is evidence that seems to prove that alcohol increases the bacteriolytic power of the blood, so that, although a great deal of experimental evidence has arisen within the past few years proving that alcohol is not a stimulant to the circulation inasmuch as it does not raise arterial pressure, we use it in pneumonia because clinically it has been proved to be of great value when it is given at the proper time and in a proper manner. Dr. Wood says that when the odor of alcohol can be detected on the breath of the patient, too much is being given. In the general improvement of symptoms we have, however, a faithful index as to how much to give. On the other hand, if the patient becomes more nervous, the circulation more "irritable," the tongue and skin dry and parched and the entire picture becomes manifestly worse, it is certain that too much alcohol is being given. The human body is capable of consuming only a very limited amount of alcohol. In febrile conditions this amount is considerably increased. In amounts easily assimilated alcohol is a food and imparts force. If more than can be assimilated be given the food becomes a poison.

Ramberg and Santvoored have proved that the pneumococci paralyze the vasomotor centers, besides weakening the heart. Hence, much of the circulatory disturbance must be attributed to paralysis of the vasomotor system as well as to a weakened heart. All measures, therefore, which increase the work of the heart, or in any way interfere with its function should be carefully avoided. According to Dr. Powell, the heart dangers are three in number; impaired nerve power, impaired nutrition and mechanical dilatation. To overcome these, nothing is so satisfactory as digitalis. This drug stimulates the pneumogastric, slows the heart's action, strengthens its beat and tightens up the vasomotor system. Under its influence the heart empties itself more completely; is supplied with better blood and does its work in a quiet, steady manner. Digitalis should not be given until it is clearly indicated. A weak, fast, empty pulse calls for its administration, especially if irregularity in the heart's rhythm is present. It is best given in the form of a standardized fluid extract, two minims of which may be given hypodermically at intervals of from four to eight hours. It must be remembered that this drug manifests its effect slowly but that the effect lasts for a long time, hence the doses should not be given too close together or one may get an overlapping of them. It is well to bear in mind that high temperatures prevent the action of this drug, and to remember that it takes several hours to manifest its full effect; it can not be relied on in emergencies, such as heart failure following the crisis.

Perhaps the most universally used drug in pneumonia is strychnin. Here we have another illustration of the physician using a drug without a clear and perfect understanding of what he is trying to accomplish. Dr. Hare says: "Strychnin is a drug that goads the system to increased endeavor and does not aid it simultaneously. It is the crack of the whip that keeps the team from being mired. Would any sensible driver whip his horses all day and then whip them all the more when they are stalled?"

1. When the druggist mixes this, a little iodin will be left in the mortar, but this amount is prescribed to insure a saturated solution.

Strychnin is a drug to be used at the crucial moment when it is necessary for the system to make one grand effort to pull itself out of a desperate situation. It is not a drug to be used continuously, although its use may extend over several days. The constant use of this drug keeps the nervous system on a "wire edge" and will undoubtedly result in more harm than good. Strychnin should be reserved for the crowded hour, when a sharp, quick attack upon the impending depression, by administration of a twentieth, or a fifteenth of a grain hypodermically, will call forth the patient's best effort to recover, and in many cases he will succeed. Another drug of great value for its effect on the vasomotor system is belladonna. This drug also should only be used when symptoms of arterial depression appear. It is of immense value just following the crisis when the patient's skin is cold, pale and clammy. Its use is indicated especially in the later stages of the disease, and also whenever the blood paths show signs of relaxation. This condition sometimes appears quite early. In no other way can belladonna be of service in pneumonia. The mistake should be avoided of giving this drug early in the disease with the idea of relaxing the blood vessels and thus aiding the inflamed lung. Belladonna never lowers arterial pressure, unless it is given in toxic doses. Then it paralyzes the vasomotor centers. Caffein and camphor are reliable heart stimulants and are sometimes useful. The former may be given in the form of one of its salts or as strong black coffee. The latter is best administered hypodermically in the form of camphorated oil. Adrenalin chlorid is a powerful vasomotor stimulant and acts directly on the heart as well. It may be given in from 15 to 30 minim doses hypodermically.

The use of diffusible stimulants as recommended by Elsner, is a very valuable procedure but I believe that Elsner's doses are too frequent. It is not necessary to give these stimulants every fifteen minutes day and night, as advised by him. With the disturbed circulation, and the condition of the patient's mucous membranes, it is hardly possible that any dose of medicine of sufficient size to be felt, will have spent itself in fifteen minutes. Every one or two hours is often enough, if necessary, the dose may be increased. There are few patients who would not be markedly disturbed by having to take a dose of medicine every fifteen minutes, and when we are vainly trying to get a patient to sleep it would seem but folly immediately to wake him up again as soon as we accomplished our purpose.

Diffusible stimulants are best given in the form of a mixture composed of equal parts of Hoffman's anodyn, aromatic spirits of ammonia, spirits of lavender and brandy. A teaspoonful of this may be given as above stated well diluted with ice water. This can be kept up as long as indicated.

An injection of decinormal salt solution under the skin is of great benefit in all cases of pneumonia. Not only does it strengthen the heart and tone up the vasomotor system but it also dilutes the toxins, starts up all the secretions and prevents heart clot. Its effect on the skin and kidneys is especially marked. With ordinary precautions it can produce no harm. It is not necessary to have an elaborate apparatus. A large syringe, such as an otologist uses for washing out the ears, will answer all purposes. A large needle can be attached to this syringe by means of a small rubber tube and the injection made just as if giving a hypodermic. From 8 to 16 ounces may be given at once and the injection repeated from time to time.

I shall speak of the use of nitroglycerin only to condemn it. It produces all harm and no good. It can not be regarded in any sense as a heart stimulant, but it does most certainly paralyze the pneumogastric and the respiratory and vasomotor systems. It also destroys the oxygen carrying properties of the blood. No one who clearly understands the physiologic action of this drug can be excused for killing a patient with pneumonia by its use. I am fully aware of the fact that some writers advocate its use late in the disease when the right heart is vainly struggling to empty itself. This drug will empty the heart certainly, but unfortunately it will liberate the soul at the same time. It is said to be indicated in cases associated with arterial sclerosis but it is in such cases that it is most likely to kill and least likely to produce the desired result. I notice that most writers advocate giving this drug at intervals of from three to six hours, and as the effect of nitroglycerin probably does not last over thirty minutes, I am constrained to attribute their success from its use, in a measure at least, to the goodness of God.

If the right heart must be relieved it is best done by bleeding, but Osler says out of twelve patients treated in this way eleven died. The collapse following the crisis, when severe, is best met by a hypodermic of strychnin 1-15 gr., atropin, 1-120 gr., and standardized fluid of digitalis 2 minims, repeated pro re nata. The patient's body temperature should be kept up with blankets and hot water bottles.

Cyanosis.—Beginning cyanosis calls for respiratory stimulants, the best of which is strychnin. Atropin is not so good a respiratory stimulant as was once believed, and as poisoning is easily produced it must not be used carelessly. Caffein as a respiratory stimulant has been highly overrated. Its power lies more in its awakening effect than in any stimulation of the respiratory centers. The inhalation of oxygen is a doubtful procedure, so far as producing any effect on the disease goes. It gives temporary relief sometimes, but as Manges says: "The fact that the dyspnea is markedly relieved immediately after the crisis, while the lung is just as much consolidated as it was before the crisis proves that cyanosis and dyspnea are not altogether due to mechanical causes, but are largely due to the pneumococci infection." In tiding the patient over sudden attacks of cyanosis and dyspnea oxygen is most useful.

Nervous Symptoms.—These consist chiefly of headache, restlessness, delirium, insomnia and hiccough. Generally they can be successfully combated by hydrotherapy. When necessary a small dose of morphin, hypodermically, will help to quiet delirium and to produce sleep. Hyoscin hydrobromate is also a useful drug at times. Hiccough when prolonged may cause exhaustion. It can usually be checked by a small dose of morphin and atropin. It is best in all these conditions to give small doses of the medicines recommended and to repeat the dose until the desired effect is produced. Marked nervous symptoms call for alcoholic stimulation.

Cough.—The cough in pneumonia is not generally distressing enough to require any treatment, but when it does call for attention a small dose of morphin hypodermically, or heroin in 1/24 gr. doses by the mouth will relieve.

Vomiting.—This is sometimes distressing. Feeding by the rectum for a day will nearly always stop it. When an initial dose of calomel has been given, vomiting is rarely severe. Cracked ice sometimes acts well when everything else fails. Continued and severe vomiting calls for stomach washing. It is very important to remember that with some patients opium in any form

causes nausea and vomiting. It is useless to try to remedy this condition in these patients while continuing to give this drug. Counter irritation over the stomach is a simple but useful procedure.

This covers the symptomatic treatment of lobar pneumonia. In the treatment of this disease, I have not mentioned venesection and arterial sedatives because their field of application is so limited as to make it a rare chance for the physician to use either to the betterment of his patient. Certainly the average patient when seen by the physician has passed the time for venesection, or arterial sedation. I will admit that there is a pre-pneumonic stage in which these measures will prevent the patient from contracting pneumonia. This is in no sense of the word an abortion, for how can any condition be aborted when it does not exist? The cases that are suited to these measures are found in strong robust persons. If the pulmonary congestion is not relieved in twelve hours, and the symptoms of pneumonia supervene, all depressing measures should be discontinued and an expectant, stimulating plan adopted.

SPECIFIC TREATMENT.

Various drugs have been advocated as specifics in pneumonia, but all of them have had an early death. Chief among these are digitalis, as advocated by Petresco, who recommends the giving of 180 grains a day and claims a mortality of a little over 2 per cent. This treatment has not met with favor. Salicylic acid has been highly lauded, but has failed to establish the claims made for it. This is not surprising when we remember that this drug depresses the heart and irritates the kidneys and digestive tract. Of late creosote carbonate has been claimed as a curative agent in this disease. It certainly benefits the accompanying bronchitis and seems to modify the infection, but after a careful trial in the Pennsylvania Hospital by Drs. Scott and Montgomery, the most that they can say for it is that experiments with it should continue with increased dosage. Iodid of potassium has very lately appeared on the field. It is said to be a specific in doses ranging from 1,500 to 3,000 grains daily. Any one who can believe this should try it. The internal administration of antiseptics has been tried with poor success. Sepine has obtained good results by injecting very dilute solutions of mercuric chlorid directly into the inflamed lung. Antipneumococci serum has disappointed the profession at large, as Dr. Welsh has shown that the antitoxin is not only absent from the blood at the time of and after the crisis, but that the toxin is actually stronger then than at any other time. So we are forced to believe Dr. Osler when he says that we have no specific for pneumonia.

Perhaps the nearest approach to a specific treatment of pneumonia is the hypodermic injection of quinin. This treatment receives the endorsement of no less an authority than Nothnagel. Muriate quinin 7½ grs. are dissolved in ½ ounce of sterile water. This is injected once daily into the lateral parts of the abdomen, where the cellular tissue is loose. Generally two or three injections suffice. The effect on the temperature is less than that on the general condition. It gives one the impression that the subcutaneous administration of quinin lessens the effect of the products of the bacteria which have found their way into the blood current. This treatment is worthy of a very careful trial.

Pneumonia is an infectious disease, and as such every precaution should be taken to prevent its spread. Not long ago a small house epidemic of this disease was reported from the Episcopal Hospital of Philadelphia. The sputum should be cared for, all bed clothing sterilized, and the patient isolated. After the patient is discharged the room should be disinfected. There is no reason why pneumonia should not be included in the diseases that are to be reported to the board of health.

DYSPEPSIA IN ELDERLY INDIVIDUALS.*

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A large number—I had almost said the largest number—of our errors are those of omission. It is of a very common error of omission that I wish to speak.

Optimism is ordinarily a virtue, but when carried too far it becomes failing. It is characteristic of most of us in the consideration of the various possibilities surrounding the complaining individual who consults us that we give first thought to the minor ailments which he may have and in a falsely optimistic manner leave from our consideration all thought of the graver diseases. Reflection will, I am sure, convince any one of the fallacy of this mental attitude; for where there are conditions making possible any of several disorders certainly we should endeavor, first of all, to exclude by all the means of our power the most serious of these, and then take into consideration the least serious.

In passing, I might suggest that were pulmonary tuberculosis the first instead of the last possibility considered in the case of every youthful individual with a cough and a record of lost weight, the mortality from this disease would be lessened. We can best serve the patient in such doubtful cases not by holding tuberculosis a dreadful thought to be put behind us and not to be mentioned, but, on the other hand, by tactfully but plainly making such provisional diagnosis as will give him opportunity to take those steps which would in its incipiency lead to the healing of a tuberculous process.

Somewhat similar, and this is the error alluded to above, is our mental attitude toward the elderly patient who for the first time suffers from indigestion, or who late in life begins to have acute exacerbations of an old but previously mild dyspepsia. Such a patient may have cirrhosis of the liver—he may have chronic interstitial nephritis—but he may also have, and to this possibility I ask your especial attention, cancer of the stomach.

Exactly why cancer of the stomach is a probability in these cases it is difficult to say; but experience teaches us that such is the case. Ordinary indigestion is almost always due to some faulty habit of diet, the quality or quantity of the food or else the manner of taking it is wrong. Such habits are acquired in youth or early adult life, and the resulting dyspepsia quickly follows. The person who has passed through the toils and stress of early adult life and has by hygienic living preserved his digestion will not late in life change these good habits. Advancing age carries with it many notable diseases and disorders of function, but disorders of digestion *per se* are not among them; so that the individual who has reached advanced or middle age without experiencing the discomforts of dyspepsia is not likely to do so unless some remote disease to which his age renders him liable becomes responsible.

These cases of dyspepsia in elderly individuals are naturally first seen by the family physician and on him

* Read before the Medical Association of the State of Alabama, April 18, 1906.

lies the burden of omitting nothing in his consideration of the various possibilities. In hospital and consultation practice we do not usually see them until the condition has lasted some time and considerable progress of the disease has rendered cancer of the stomach a probability even to the casual observer. Then little can be done for the sufferer, although much might have been done a few months earlier.

As has been very aptly suggested, we have been educated up to the point of thinking immediately of cancer of the uterus when a woman who has passed a menopause bleeds from that organ; so why not give to the stomach the same consideration when, previously healthy, it begins in old age to show signs of disease.

Examples are common and I mention the following merely by way of illustration:

CASE 1 (Hosp. No. 7463).—M. H., laborer, age 43. Symptoms of dyspepsia, bad taste in the mouth, discomfort after eating, anorexia and belching first appeared seven months before admission to the hospital. He had been during this time treated by his family physician for dyspepsia. Diagnosis of cancer of the stomach was made soon after admission and he was operated on. On opening the abdomen it was seen that, in addition to the primary growth at the pylorus, metastatic carcinomata were present in the liver and the pancreas. Death occurred a short time later.

CASE 2 (Hosp. No. 8978).—A. B., boiler fireman, age 44. Patient was admitted complaining of "much trouble with the stomach." He had suffered with dyspepsia for past ten months, for which he had been treated. Physical examination revealed a tumor in the left hypochondrium and gastric analysis showed it to be a carcinoma. Operation revealed carcinoma of the pylorus. The patient left the hospital a little more comfortable than on admission, and nothing more was heard from him, but I think it safe to assume that the course of the disease was not interrupted at the late stage in which this operation was undertaken.

CASE 3.—Another case, in a man of 50 years, which made a profound impression on me, but of which, unfortunately, I have no clinical record, came under my care as an ordinary case of dyspepsia. He complained of discomfort after eating, anorexia, belching and occasional vomiting of a year's standing, for which he had been under constant treatment. I remember this man's statement, in answer to my question, that no physical examination of him had ever been made nor any attempt at determining the functionating capacity of his stomach. His clothing being removed, a tumor in the left hypochondrium was very evident, and closer examination convinced me that it was of the pylorus. Gastric analysis confirmed the diagnosis of cancer. The patient would not consider an operation, and feeling it to be hopeless, I could not urge it.

I selected these three cases for reporting because each was hopeless when it came under my care and because much could have been done for each of them had cancer of the stomach been suspected and looked for when the group of symptoms called dyspepsia first appeared.

It is not the function of this communication to discuss the means of diagnosticating cancer of the stomach, which may, with the exception of a few suggestions in the recent literature, be found in any of the text-books on that subject. While there is no truly pathognomonic sign, there are conditions to be observed from an examination of the stomach contents and otherwise which, taken together, at least approach certainty in their significance. And where there is a reasonable doubt, I believe, in view of the skill attained to-day by our colleagues in surgery, that an exploratory incision is a perfectly legitimate means of diagnosis.

It seems hardly necessary to dwell on the advantages of an early diagnosis in cancer of the stomach. Many surgeons, like Czerny and Rindfleich, state that when a recognizable tumor has appeared or marked cachexia is present, operative measures can not accomplish anything. Yet we are agreed, and I speak as an internist, that in the earlier stages of this disease surgery can do much for the patient by increasing his comfort and prolonging life. Therefore, you can understand why I make the plea, and make it before this association of practitioners, that every middle-aged or elderly individual who for the first time has dyspepsia be studied most carefully to determine whether cancer of the stomach be present.

FIVE CASES OF MECKEL'S DIVERTICULUM.*

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In order that we may call to mind the nature of a Meckel's diverticulum, it will be necessary to recall briefly the method of development of the alimentary canal.

When the three blastodermic layers have formed a longitudinal axis and the mesoderm has partially segmented to form the celom or the body cavity, the infolding process begins from all directions, but as the embryo is by this time much elongated, approximation takes place laterly much sooner than from above and below, i. e., from headward and tailward.

Also the splanchnopleuric or inner layer approximates much more rapidly than the somatopleuric or outer layer. As a consequence of the almost complete approximation of the inner layer, the incomplete alimentary canal is formed and a narrowly constricted communication remains between it and the general vitellin cavity from which the embryo draws its nourishment until the allantois is formed. Then the vitellin cavity begins to diminish relatively very rapidly and as the outer layers close in, forming the body wall, it is again constricted at the umbilicus and divided into an extra-abdominal portion or vitellin sac proper and an intra-abdominal portion or vitellin stalk or duct, extending from the intestine to the umbilicus.

After the complete formation of the allantois, all that remains of the sac is an almost unrecognizable vestige which afterward forms a part of the umbilical cord. The duct, the intra-embryonic portion, also begins to atrophy and soon after the formation of the placenta should entirely disappear.

This disappearance, however, does not always take place and the duct may persist throughout life as a more or less patulous tube, known as Meckel's diverticulum. This is generally attached at the greatest convexity of the umbilical loop of the embryonic intestine which represents a point in the adult about three or four feet above the ileocecal junction, but may be attached anywhere from the duodenum to the cecum, or even to the rectum.

It is generally from one to four inches in length and often ends in a more or less pouched extremity, though not uncommonly it terminates in a fibrous cord several inches in length.

It is generally attached nearly opposite the mesentery and may have a mesentery of its own.

In size, it may be a mere fibrous cord throughout or as large as the intestine from which it springs, and it contains all the intestinal coats.

It is said to occur in from 1 to 2 per cent. of all individuals.

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* Read before the Boulder County Medical Society, 1906.

This small series of five cases has been met with in less than one hundred autopsies. In two cases it was the cause of death, but in the other three it gave no symptom whatever of trouble.

They were all discovered at autopsy and were wholly unsuspected during life except in one case as a possibility.

Halstead estimates that it is the cause of 6 per cent. of all cases of intestinal obstruction and Fitz classes it as more dangerous to its possessor than a veriform appendix.

Its most common method of causing difficulty is by band; i. e., the fibrous cord which often extends from its tip, becomes attached by some inflammatory process, or otherwise to some point on the abdominal wall, the intestine or mesentery, creating a band behind which a loop of the intestine become incarcerated. Fitz has proved by his demonstration of the presence of the remains of the omphalomesenteric vessels that this is not ordinarily an inflammatory or accidental attachment, but is a remnant of the original connection with the umbilical opening.

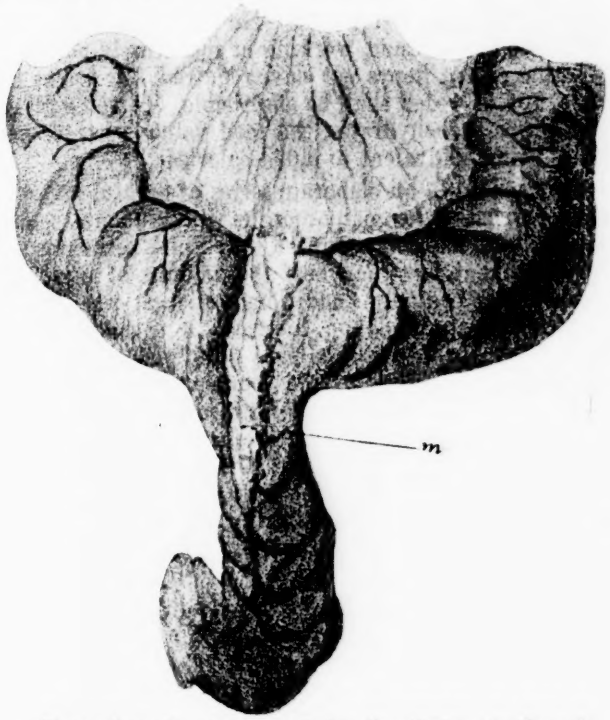

Illustration of mesentery of the diverticulum in Case 4.

Other methods of causing trouble, probably in order named, are: volvulus, intussusception, diverticulitis, hernia—umbilical, inguinal, or internal—and perforation by various ulcerative processes.

Dr. Miles F. Porter, Ft. Wayne, Ind., to whom I am indebted for much data, has recently collected from the literature 149 cases and reported 35 more from other sources, from which he gives a very admirable summary of the conditions in all its phases.

He concludes that the enormously high death rate is due to non-operative interference or late operations and urges early operations in all cases of intestinal obstruction.

My cases were as follows:

CASE 1. Mrs. H., aged 40, two or three children, general health good, except for a number of attacks of intestinal colic of great severity, but of short duration.

History.—She was seen first on April 1, 1901, in an attack which had lasted about twelve hours. Pulse was 156 and weak; the abdomen was somewhat distended and imprint of coils of intestine could plainly be seen through the walls; there was some vomiting of fecal matter, with practically all symptoms of intestinal obstruction. The patient grew rapidly worse and died next day—thirty-six hours from beginning of attack—without operation.

Autopsy.—On opening the peritoneal cavity, a mass of shiny, ebony-black, distended intestine protruded itself. This mass proved to be a loop of the ileum about 3 feet in length and sprang from near its middle. It was found to be firmly constricted at its base by a Meckel's diverticulum which arose from the ileum 3 or 4 feet from the ileocecal junction. It had a mesentery which had tended to draw it upward and to the right where it had fallen into a hole in the mesentery of the ileum, else had made one for its passage.

This increased the tension on its mesentery and it continued the curling process until it entirely encircled the loop of intestine mentioned and again passed through the hole in the mesentery, thereby making one and one-half circuits. It was dislodged with difficulty, and only after enlarging the opening in the mesentery, and was found to be about four and one-half inches in length. The extremity was slightly expanded and there was no fibrous continuation.

Judging from the suddenness of the grave symptoms, the amount of the shock and the appearance of the strangulated bowel, the strangulation must have been sudden, giving insufficient time for much peritonitis to be established in the constricted portion of the bowel, yet there must previously have been some interference with the intestine, from traction or otherwise, causing the colicky symptoms. I can find no other case in the literature like this unless it be Taylor's case, reported by Porter, in which he says: "The diverticulum wound round the gut through a hole in the mesentery."

CASE 2. Male, aged about 50. In course of routine autopsy. Meckel's diverticulum about 2 inches long and about two-thirds the diameter of the ileum from which it sprang and with a free and somewhat pointed extremity was found. There was no attachment of its free extremity and no evidence of there ever having been any trouble from it.

CASE 3. Male, aged 40. This case was the same as Case 2, except that the diverticulum was about 3 inches in length and was slightly clubbed at its extremity. There was no mesentery in either of these cases.

CASE 4. R. M., male, aged 22, single, laborer, was brought down from a mining town with a history of intestinal obstruction of forty-eight hours' duration with abrupt onset. There was then general peritonitis, and the patient died in three hours, without operation. There was history of previous attacks of appendicitis.

Autopsy.—This revealed adhesions from old appendicitis, and behind one of the bands thus formed was a loop of intestine about 6 or 8 inches in length, and hanging from the most dependent portion of it was a Meckel's diverticulum about three and one-half inches in length and ranging from an inch in diameter near its attachment to one and one-fourth inches near its extremity, which was inclined to be bifid. It was entirely filled with a hard fecal mass and it, as well as the incarcerated portion of the ileum, was gangrenous and seemed on the verge of perforation near its extremity.

CASE 5. This instance was found in course of routine autopsy on a woman 73 years old and had given no symptoms. It was situated about 3 or 4 feet above the ileocecal junction, seven-eighth of an inch in diameter and was slightly expanded at its extremity. It also had a small diverticulum growing from near its extremity, probably one-half inch in length and half as thick.

SUMMARY.

I found five cases in a little less than one hundred autopsies—being over 5 per cent., whereas they are ordinarily found in from 1 to 2 per cent.—this, of course is merely incidental to the small series. In two of my cases this condition caused death, although in one of them the peritoneal adhesion from the former attacks of appendicitis was also a factor. In both cases which

caused the trouble there was a mesentery of the diverticulum. All the diverticula were between two and one-half and four feet from the ileocecal junction. The manner of causing strangulation in Case 1 was unique.

I believe from this short series of cases, as well as the reports of some of our most careful observers, that diverticulum troubles are more common than are generally supposed and should be borne in mind as one of the not uncommon causes of intestinal obstruction.

A PORTABLE RATION FOR SOLDIERS IN BATTLE AND ON THE MARCH.*

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So many and so complex are the considerations involved in this question that it can be readily seen no uniform standard can be made applicable to all armies or to all countries. Climate, season, custom, fixed tastes of different nationalities inherited through generations, distance from base of supplies, cost of preparation, are all factors that materially influence the selection of a portable ration and also indicate the impossibility of uniformity. It is, therefore, not my purpose to advocate any single standard ration, but rather to point out the advantages of certain articles of food that may be added to or replace others in already existing standards, as gathered by an experience with different armies in various lands.

An efficient dietary requires that its constituents shall furnish the proximate principles in amounts necessary for the economy, that they shall be easily digested as well as palatable, and that they shall fulfill their requirements with the minimum waste.

Briefly, the nutritive substances in food are the proteids, the carbohydrates and the hydrocarbons or fats. To these are added the mineral salts, water and accessories. The function of the proteids consists principally in the repair of waste, and they also supplement the carbohydrates and hydrocarbons in the generation of heat and energy.

The inorganic salts and water, although not foods, since they neither repair waste nor produce energy, are absolutely necessary to the chemical and metabolic changes which take place in living organisms.

Muscular energy requires for its generation a far more complicated process than mechanical force, just as the human machine is much more complex than the mechanical. In the steam engine the transformation of force from fuel to heat, and heat to power, is rapid and can be measured with mathematical exactness. In the animal machine this is not the case. A complicated process of digestion and assimilation are necessary, and these are often influenced by surrounding conditions which affect the nervous state of the individual and impair the production of energy and the repair of tissue. Nature provides for this by conserving the animal forces and storing them, so they may be available when needed. No more striking example of this conservation of energy in muscle can be found than in the hunting dog, who works from morning till night on his stored muscular power, often covering a hundred miles without a morsel of food until his day's work is done, when he is given a full meal before his rest. During the night his food becomes thoroughly digested, absorbed and stored, so that he is ready next morning to repeat his labor. Feeding during the day impairs his keenness of scent and produces heaviness and desire to rest.

All animals naturally rest after eating. It is by following these dictates of Nature that the most beneficial results are obtained.

A portable military ration for soldiers on the march or in battle requires special elements which are not demanded in the dietary of those in other walks of life. Such a ration must be small in bulk, compact so as to be easily carried by the soldier in sufficient amounts for several days' use; it must be previously prepared or capable of being prepared with facility by the individual soldier, often under the most adverse conditions, and it must be non-irritating and of such character that it will keep under varying conditions of climate and weather.

That these requirements are not easily fulfilled is apparent by the varied rations in use in different armies, and the frequent changes made in them.

For many years the data deduced by Voit as to the amounts of the proximate principles of food necessary to maintain health and to produce heat and energy have been accepted as a standard. He estimated that a man of 154 to 156 pounds, working at moderately hard labor for nine or ten hours per day, required 118 grams proteids, 105 of which shall be absorbable, 56 grams fat and 500 grams carbohydrates, the food values of these principles being equivalent to 3,054 calories.

Chittenden, in an elaborate series of careful investigations, carried on for many months with students, soldiers and athletes, has demonstrated that Voit's estimates were excessive, that less than half the amount of proteids is ample under ordinary conditions and that with this diminution in proteids no increase in carbohydrates is necessary. He also proved that 3,000 calories is in excess of the real needs of the economy; in other words, that the average individual consumes double the amount necessary for the maintenance of health, and that the excess of food frequently acts detrimentally in producing imperfect digestion, fermentation, the creation of toxins and thereby necessitating additional work of elimination, for excess will as surely produce disease as insufficient or improper food.

While these conclusions hold good in the case of the subjects of Chittenden's experiments, a soldier in campaign or in battle undergoes an entirely different process of nervous tension and physical fatigue, wear and tear. Admitting his results, however, the proportions of one part proteids, two-thirds of a part of fat and three and one-sixth parts of carbohydrates, with one-fourth of a part of mineral matter, hitherto taken as a standard, may be changed to advantage. In the hitherto accepted scale of proportions the relation of nitrogen to carbon is as 1 to 15.

The results achieved by the Japanese in the prevention of disease in their army in the recent war with Russia, wherein the death rate from disease was far below that of any other army in history during active warfare, was due to several factors, of which the ration only concerns us at present.

This ration up to February, 1905, was as follows:

Rice	6 go	= 1,020	grams.
Or hard bread	270 momme	= 480	grams.
Fresh meat without bone	40 momme	= 68	grams.
Or fresh meat with bone	50 momme	= 85	grams.
Or dried salt meat	30 momme	= 51	grams.
Pickled plums	15 momme	= 25.5	grams.
Powdered misc.	20 momme	= 34	grams.
Salt	3 momme	= 5.1	grams.
Sugar	3 momme	= 5.1	grams.
Tea	1 momme	= 1.7	grams.

10 go = 100 momme = 170 grams; 1 momme = 1.70 grams.

* Presented before the Military Section of the International Medical Congress, Lisbon, April 23, 1906.

The nutritive value of this ration is approximately as follows:

Articles.	Protein. gms.	Fats. gms.	Carbohydrates. gms.	Nitrogen. gms.	Carbon. gms.	Fuel Value. Calories.
Rice, 36 oz., 1,020 gms.	81.60	6.12	805.80	13.05	302.97	3604
Fresh meat, 2.4 oz, without bone 68 gms.	12.92	5.71	.....	2.06	2.11	102
Misc. estimated 1.70 oz., as per meal 34 gms.	8.36	.34	21.08	1.33	8.06	120
Sugar, 1.8 oz. 5.1 gms.	....	...	4.84	...	1.79	19
Totals	102.88	12.17	931.72	16.44	314.93	3845

Nitrogen to carbon, 1 to 19.

According to Voit's tables it is markedly deficient in fats, though the fuel value is high. The proteids are likewise below his standard. The carbon in the ration is almost entirely derived from the carbohydrate elements, which can not entirely replace the fat element without detriment to the nutritive process. Yet with this ration the Japanese troops endured all the hardships of a most vigorous campaign. The Russian troops likewise, according to Colonel Havard, U. S. Army, maintained a state of health superior to that of troops at home in the Russian garrisons on a ration which American or English soldiers would reject with scorn. The same observer gives the Russian field ration as follows: Fourteen ounces (396 grams) of fresh meat; two pounds (907 grams) of black rye bread; three or four ounces (85-113 grams) cereals or fruits, and vegetables, tea and sugar when procurable. In emergencies these quantities, especially the meats, were often reduced. This ration has a nutritive value of about 150 grams of proteids and 450 grams of carbohydrates, while its value in calories is 4,180.

Among the Japanese troops there was a noticeable absence of gastrointestinal diseases, and I am firmly convinced that their easily digested, non-irritating and readily assimilated ration was an important factor in eliminating disease of this class. On the other hand they suffered greatly from the scourge of Oriental races, beriberi. Almost one-half of the sickness in the army during the war with Russia was from that disease. The estimate of the number of cases—24.3 per cent. of the entire sick and wounded—shows the enormous total of 84,545. The disease had been practically eliminated from their navy in 1885, and no case occurred among the naval forces during the Russo-Japanese war. This result was accomplished by Baron Takaki, medical director of the navy, through a change in the naval ration, principally by the addition of barley, whereby its nutritive value was increased from 109 grams of proteids, 15.8 grams of fat and 622 grams of carbohydrates to 196 grams of proteids, 43 grams of fat and 775 grams of carbohydrates.

Bread and meat are the essential constituents of all dietaries, and military men generally recognize the importance of making provision for their supply whenever possible. Portable field ovens for baking bread and the furnishing of fresh beef by herds accompanying the army or the preservation of meat by refrigeration and its transportation in the frozen state are now commonly employed in the military service for this end. Vegetables will always be supplied when practicable, as their use is of the greatest importance in the maintenance of the health of troops.

I wish, then, to be distinctly understood that in proposing a portable ration for soldiers on the march or in battle I advocate it only as a field ration, when fresh meat and bread and vegetables can not be supplied; that in no manner is it proposed to replace the ration issued under ordinary military conditions; neither do I wish to be understood as advocating it as a substitute for the numerous varieties of the emergency ration, which is only to be taken under occasions of great stress.

As the proteid constituent of such a ration I desire to call attention to smoked beef. In the process of its preparation the meat is exposed to the slow action of wood smoke. After a preliminary salting and drying the meat is suspended in a closed chamber and saturated with the smoke on alternating days for at least a month. Green hickory and beechwood are the best varieties for this purpose, as they generate more creosote than other woods. As a result of the action of the smoke, the meat becomes impregnated with pyroligneous and acetic acids and creosote. Meat preserved in this manner will keep indefinitely, is easily digested and palatable, and it may be eaten raw or cooked. It does not soon become distasteful, like canned roast beef or corn beef; it is small in bulk, hence there is no transportation of unnutritious material; it is not irritating and is not likely to cause gastrointestinal disturbances. Its nutritive value is high as it contains 26.4 per cent. protein and 6.9 per cent. fat; and owing to the creosote with which it is impregnated it possesses antiseptic qualities, which I consider of great value in a military diet.

For the carbohydrate constituent of the ration I would suggest a mixture of 7 parts rice to 3 parts barley meal. Rice, while deficient in proteids and fat, possesses the quality of being easily digested, its starch granules ranking first among the carbohydrates in this respect. It is procurable everywhere, cheap and economical, in that there is no loss of any of its constituents in the cooking. Barley meal is slightly richer in proteids and nearly four times as rich in fats, and approaches wheat in its nutritive power.

The mixture of these two grains is a very good substitute for bread, and lends itself particularly to the making of a palatable soup or stew. It should be cooked, dried and ground; so prepared it keeps well, is easily transported, and can be quickly prepared by the individual soldier. It is especially proposed as a substitute for the hard bread which now forms such an important constituent of most military field rations. Hard bread is irritating to the alimentary canal and unless well masticated or soaked in fluids its sharp angular particles will cause diarrhea. While theoretically it appears to be a good substitute for leavened bread, it is well known that it soon becomes distasteful and men do not thrive on it. It also has the objection of readily becoming moldy if exposed to the damp weather. (Prepared breads like French *pain de guerre* and Austrian aerated hard bread, are either too expensive or unsatisfactory in other respects.)

In the proportions suggested, the water-free combination of rice and barley, weight for weight, has a larger percentage of fats and carbohydrate than hard bread, and though its proteid value is somewhat less, there is less loss from non-absorption, because of its greater digestibility.

In this form it was issued to the Japanese troops after February, 1905, with the result of rapidly diminishing beri-beri in their armies.

Napoleon, commenting on the terrible trials of the Moscow campaign, mentions that of all his army the Italian troops withstood the hardships best. They were subsisted on a ration made up almost exclusively of vegetables and cereals. Leonidas and his little Spartan band defended the pass of Thermopylæ on a diet of lentils. The winner of the late Marathon race at the Olympian games trained on the same food, the lentil.

Barley meal and rice with smoked beef are then to constitute the bread and meat components of the ration. In addition to these nutritive elements I would strongly advocate the issue of sugar in greater amounts than is now used in any army. While it is recognized as a necessary adjunct to the military ration, I do not believe its advantages are appreciated to the extent that its qualities merit. When energy is to be liberated rapidly, with the least tax on the digestive system, sugar, an almost pure soluble carbohydrate, would seem to be the ideal food for the purpose. It is essentially a producer of muscular energy; it increases the ability to perform work and lessens or delays fatigue. Harley showed that when 200 grams were added to a small meal the total amount of work done was increased from 6 to 30 per cent., and when added to an ample meal, this total was increased still more. Comparative experiments made by Prantur and Stowasser in 1899, showed that men to whom sugar was administered were able to perform more work with less fatigue than those from whom it had to be withheld. The pulse rate and respiration were less affected when it was given than when it was withheld.

Sugar is readily soluble, easy of digestion, appeases hunger, and lessens thirst. Possessed of such qualities, its value as a part of a military ration is unquestioned. Its combination with chocolate has been frequently recommended, especially as an ingredient of the emergency ration. When so combined it makes an excellent food or drink and is a valuable adjunct to the field ration. Chocolate is easily digested and absorbed. It has slight stimulating properties, due to its active principle, theobromine, though in this respect it has less of the active principle than coffee, but like these it appeases the cravings of hunger. It contains 12.9 per cent. protein, 48.7 per cent. fat and 30.3 per cent. carbohydrates. Its nutritive value is therefore very high. It is palatable and can be eaten uncooked or readily made into a beverage with hot water. It is easily compressed into tablets, making it easily portable, and possesses excellent keeping qualities. It thus meets with all the requirements of a military food. The only objection against it for general use is its cost.

All military men agree as to the necessity of tea or coffee as an article in the soldiers' ration. Both, when properly made, are agreeable, refreshing and stimulating beverages; both diminish bodily fatigue, and allay hunger, and as they are prepared with boiling water, they are certain to be sterile. Both enable men to endure cold and hardships, but the experience of Arctic travelers give tea the preference. When drunk hot they maintain the bodily temperature and permit the use of food for purposes of energy which would otherwise be applied to the maintenance of bodily heat. Tea is in my opinion far preferable to coffee as a component of the military ration under consideration. Coffee when roasted and ground, and in that form only is it feasible in the ration under discussion, rapidly loses its fragrance and aroma. Tea retains these qualities much longer. The equivalent of a ration of tea as compared with a ration of coffee is but one-sixth in weight, while its bulk is correspondingly smaller. Compression into tablets increases its economical value through the breaking up of the vegetable cells by pressure. The readiness with which the infusion can be made by the individual soldier is another great advantage it has over coffee. To this purpose the water bottle or canteen of the Japanese soldier lends itself readily. This is made of aluminum with a flat bottom, with a screw top which serves as a cup; water can be quickly heated in a bottle so shaped, and in a very short time the soldier's tea is prepared. Another advantage of the aluminum water bottle is that tea does not attack the metal and produce a tannate of iron as is the case when an iron vessel is used.

To the above articles should be added salt and pepper. The necessity for them is self-evident and needs no argument. The quantities in which these ingredients of the proposed daily ration should be issued, and their nutrient force values are as follows:

Articles.	Protein. gms.	Fats. gms.	Carbohydrates. gms.	Nitrogen. gms.	Carbon. gms.	Fuel Value Calories
Smoked beef, 170 gms.	44.88	11.73	.....	7.18	9.26	28
Rice, 315 gms.	25.20	1.89	248.85	4.00	93.56	113
Barley meal, 135 gms.	14.18	2.97	125.78	2.36	46.54	58
Sugar, 79 gms.	....	....	66.56	...	24.60	266
Chocolate, 70 gms....	9.03	34.09	21.26	1.42	7.84	424
Tea, 10 gms.	....	....	.....	...	....	...
Salt, 10 gms.	....	....	.....	...	....	...
Pepper, 1 gm.....	....	....	.....	...	....	...
Total	93.29	50.68	462.33	14.96	181.80	2672

Nitrogen to carbon as 1 to 17.8.

This ration is easy of digestion, is palatable, satisfying, and with water it has considerable bulk; it is non-irritating, and to a degree antiseptic, and in my opinion meets with the requirements demanded.

The main objection to be apprehended from the use of a concentrated ration is its lack of bulk. Quantity is as essential as quality in rendering a food digestible. The stomach and intestinal canal require a decided amount of distension to stimulate their normal secretions, while at the same time the bulk serves to increase peristalsis, to flush the kidneys, and carry off waste products, which, if retained, would generate toxins. For this purpose I believe nothing equals hot water in value. It mixes admirably with every constituent of the ration enumerated; it furnishes that most grateful quality—heat to the digestion tract, especially at night when the soldier is exhausted and chilled after a hard day's march or the nervous tension of field service—it relieves fatigue, reinvigorates the system, and rapidly restores it to the best possible condition to resist disease.

An essential adjunct for the successful use of this ration is the portable water and soup kettle, which should form a part of every company's outfit. It should be made of aluminum, with attached fire box, mounted on wheels, and light and easy of transportation. These kettles, or similar ones, were in almost universal use by both armies in the recent oriental conflict, and they proved a most important factor, through the sterilizing of food and water, in reducing mortality from preventable diseases to the minimum point known in the history of war.

247 Fifth Avenue.

Treatment of Typhoid.—At the beginning, says Van Zant in the *Denver Medical Times*, I am accustomed to clear out the bowels with calomel and a saline, but later I rarely give purgatives for this purpose, relying entirely on colon enemata. In accordance with this plan, I have never felt it wise to resort to the Woodbridge treatment, for it is essentially laxative and irritant, increasing peristalsis and, I fear, the tendency to hemorrhage. A moderate experience with the new intestinal antiseptics has not impressed me in their favor. Salol has seemed useful in limiting tympanites, due to fermentation of food, and also as a urinary antiseptic; likewise the sulphocarbolates and creosotal. Turpentine by the mouth and in high colon flushings has a well-merited place in treatment. If the movements are not especially loose or frequent, it is not best to check them by medication, but to limit the degree of tympany as above suggested. Hemorrhage is best met by ice-bags to the abdomen, morphia hypodermically, and hypodermoclysis of normal salt solution; perforation by immediate laparotomy. Of direct specific treatment I believe there is none.

Special Article

THE PHARMACOPEIA AND THE PHYSICIAN.

CHAPTER XXII.

Vesicants.

Vesication is the result of greater irritation than that which merely causes rubefaction. The exudate from the blood vessels is not absorbed, but collects beneath the horny layer of the skin, which it can not penetrate, but which it separates from the layers beneath. Such collections of fluid are called vesicles or blisters, and the agents which produce them are termed epispastics, vesicants or "blisters".

If the vesicle is ruptured soon after it has formed, and the horny layer removed, it leaves a tender surface of the skin exposed; this is irritated even by contact with the air, and, being easily permeated, it is liable to infection, hence it is better to puncture the blister with a sterile needle inserted at the periphery; the fluid is allowed to escape while the loose layer of epidermis is left in place for protection until a new hard layer is formed.

While there is some sensory stimulation, vesication may occur from slowly acting agents which do not penetrate readily, with merely an itching.

Those agents which applied to the skin cause vesication also cause an irritation of the mucous membrane, but, as the exudate escapes more readily from such surfaces vesication does not usually occur.

Vesicants, and, in fact, all but the mildest of irritants, such as heat, are contraindicated in the treatment of infants, in diabetics who are prone to gangrene, and for the old and the feeble.

The internal use of irritants which are excreted by the kidneys, and their external use if they are absorbed, as sometimes occurs with cantharides, are to be avoided in nephritis: in such cases stronger ammonia water may be used, but it is very painful.

Mustard occasions so much pain before blistering, owing to the volatility of the oil of mustard, which, therefore, penetrates readily, that it is seldom used to produce an irritation beyond the stage of rubefaction.

Cantharides contains cantharidin, which, though readily volatile at a higher temperature, is not much affected at the body temperature and does not rapidly penetrate the tissues, hence cantharides causes vesication with but little pain and is much the most popular of the vesicating agents.

OFFICIAL PREPARATIONS OF CANTHARIDES.

CANTHARIS.—U. S.—Cantharides, more popularly known as Spanish flies, is officially described as the thoroughly dried beetle of *Cantharis vesicatoria*. The powder of cantharides, which is the form of the drug that is most frequently found in the shops, is grayish brown in color with shining green particles. It should contain few or no hairs.

CERATUM CANTHARIDES.—U. S.—Cantharides cerate, also known as blistering cerate or blistering plaster, contains 32 parts of powdered cantharides in a mixture of liquid petrolatum, yellow wax, rosin and lard. Cantharides cerate is most frequently used in the form of a plaster, spread on the official adhesive plaster or some other suitable grease-proof material.

COLLODIUM CANTHARIDATUM.—U. S.—Cantharidal collodion represents the chloroform soluble portion of 60 parts of cantharides dissolved in sufficient flexible collodion to make 100 parts.

TINCTURA CANTHARIDIS.—U. S.—This preparation represents 10 parts of cantharides extracted with alcohol. It is not usually efficient as a vesicant, but is frequently used externally as an irritant or rubefacient.

The active principle of cantharides is not soluble in water, and as the normal skin is usually covered with a thin film of perspiration or water, the necessary precautions must be taken to have the blistering preparation come in contact with the dry skin.

This is most readily accomplished by washing the part with soap and water and wiping it with a small amount of strong alcohol. In the case of the cerate or plaster the alcohol may be followed by a fatty oil, or, better still, the surface of the plaster may be thinly covered with a coating of oil.

In directing the use of a blister it should be remembered that the resulting vesicle is usually larger than the plaster that has been applied, and the size of the latter, therefore, should be gauged accordingly.

Cantharidal collodion is simply painted on the surface, and is more cleanly than the cerate. In using blistering collodion the same precaution of thoroughly cleansing the skin, with soap and water, and alcohol, should be observed so as to insure vesication.

Vesication usually ensues in about six hours after the application of the vesicant, but a somewhat longer period may elapse even in cases in which all the necessary precautions have been observed, and the physician should allow ample time before he concludes that the preparation is worthless.

Cantharides is prone to deteriorate with age, and one is often inclined to attribute the failure to cause blistering, to the worthlessness of the product, but even a faultless preparation may at times fail to produce vesication.

The now widely used rubber-base plaster containing cantharides, although not official, has many points of advantage over the less cleanly extemporaneous plaster made from the cerate. After preparing the surface of the skin, as indicated above, the plaster is smeared over with a thin film of oil and applied at once. After causing sufficient vesication it can be removed readily, and in this respect offers some advantage over the blistering collodion which continues to act until exhausted.

While cantharides is commonly employed as a vesicant, it is sometimes applied for a shorter time to produce rubefaction, and its irritant action is also made use of in hair tonics, as it is supposed to stimulate the growth of hair.[1]

The expensive Packer's tar soap has no advantage over the very much cheaper tar soap generally used by machinists for washing grease from the hands.

Where an oleaginous preparation, containing cantharides, is desired, the following may be used:

℞. Olei ricini
Tincturæ cantharidis, āā ..... f ℥ii 8
Spiritus myrciæ ..... f ℥i 30
Alcoholis q. s. ad ..... f ℥vi 200
M. Sig.: Apply locally to scalp.

The toxicology of cantharides is of some importance because the laity has an exaggerated idea of its efficiency as an aphrodisiac without a corresponding appreciation of its harmful effects on the kidneys.

Poison oak has been used as an irritant, but it is wholly unsuited for the purpose because of the extraordinary activity of the irritant principle, the uncertainty of its action, and the inability to control it, which render it far inferior to many other available irritants.

It is of much greater toxicologic interest because of the frequency with which accidental poisoning occurs, either from handling it or merely coming into the immediate neighborhood, since even dust particles may carry enough of the extraordinarily active fixed oil, toxicodendrol, on which the action depends, to poison susceptible persons.

Toxicodendrol penetrates the skin very easily and, therefore, is difficult to remove. Even bland oils are to be avoided in the treatment of poisoning by it, since they but serve to dissolve and to spread the poison, the same being true, of course, of ointments, vaselin and cerates.

In treating a case of rhus poisoning as much as possible of the poison should be removed by repeated washing with soap and fresh portions of warm water, after which a paste of soap or a solution of lead acetate is applied. If vesicles form they should be opened with care and the liquid received on absorbent cotton or a powder such as baking soda, since it would but spread the infection if the exuding liquid were allowed to spread over the surface of the skin.

1. The following formula fairly represents the form of mixture commonly used as a hair tonic:

℞. Tincturæ cantharidis ..... f ℥ii 8
Ammonii carbonatis ..... ℥i 4
Spiritus myrciæ ..... f ℥ii 60
Aquæ q. s. ad ..... f ℥vi 200
M. Sig.: Apply with brush, rubbing into the scalp after washing with tar soap.

The place should then be carefully washed with soap and warm water to remove even traces of the fluid from the vesicles, and the soap paste or the solution of lead acetate applied.

Fluidextract of grindelia robusta, diluted with water, or with a saturated solution of sodium bicarbonate (about 6 per cent.) has had a special reputation as a wash for the treatment of poison oak.

Pustulants.

Pustulants are those irritants which give rise to pustules instead of vesicles. The pustulants appear to be unable to affect the skin through the horny layer as a rule, but can only penetrate the orifices of the glands. They are much less frequently used than the rubefacients and the vesicants.

As tartar emetic is not irritant except in acid solution it has been suggested that it is decomposed by acids in the cutaneous glands, and there produces pustulation.

Croton oil owes its irritant action to crotonoleic acid, which exists mainly in combination as a fat. This fat is not affected by the gastric juice, but is split up in the intestines and the crotonoleic acid is then able to exert its violent irritation resulting in purgation.

Applied to the skin croton oil causes pustulation. It is not now so much used externally or internally as it was formerly.

Official Pustulants.

ANTIMONII ET POTASSII TARTRAS.—U. S.—Antimony and potassium tartrate, more commonly known as tartar emetic, is usually seen as a white granular powder, without odor, and having a sweet, afterward disagreeable metallic taste. It is soluble in about 16 parts of cold water, but is much more readily soluble in hot water.

Antimony and potassium tartrate may be used externally, as a pustulant, either in the form of the powder, in aqueous solution, or in the form of an ointment. The German pharmacopeia contains a formula for the latter preparation that appears to be quite popular on the continent of Europe. This is a simple mixture of 20 parts of antimony and potassium tartrate, with 80 parts of petrolatum.

Because of its irritant action tartar emetic produces nausea or emesis, when taken internally, according to the amount employed. It is much more frequently used as a nauseant than as an emetic, and least often as a pustulant; for the latter purpose it will be found to be preferable to use it in the form of an ointment, similar to the one referred to above, simply rubbed on the skin.

OLEUM TIGLII.—U. S.—Croton oil is described as a fixed oil expressed from *Croton Tiglium*. It occurs as a pale yellow, or brownish yellow viscid, fluorescent liquid, having a mild, oily, afterward acrid and burning taste. In eastern countries croton oil appears to have been known from a very early period. It was known in Europe several centuries ago, but fell into disuse and was reintroduced there with several other drugs from India, about 1813.

Caustics.

Caustics are irritants which either cause violent inflammation, resulting in necrosis, or dissolve the tissue by direct chemic action.

Caustics may be used to produce counterirritation alone, to remove exuberant or diseased tissue, or, in diluted form, to stimulate non-granulating surfaces.

Apart from the use of the thermo-cautery in surgery, that of lunar caustic for exuberant growths and non-granulating tissues, and of arsenic for the destruction of the nerves of teeth, caustics are not very widely used at the present time.

The number of substances possessing a corrosive action is of course very great, but many of them are not suited for therapeutic use, thus the strong alkalies, such as caustic potash and caustic soda, dissolve the tissue and penetrate deeply, hence their action is not easily controlled, besides they are very painful.

Potassium hydroxid, better known, perhaps, as potassa, is sometimes used to soften and to remove the callous of corns and warts.

The action of silver nitrate, and of copper sulphate, in the form of molded sticks, or cones, is so easily controlled that they are very comonly used.

ARGENTI NITRA:—U. S.—Silver nitrate, as lapis infernalis, appears to have been known to Geber in the eighth century and has been used extensively since that time. It occurs as colorless crystals, which are freely soluble in about one part of water and melt or fuse at 200 C. (392 F.). This latter feature is taken advantage of in making the official forms of fused silver nitrate, and is also of advantage in forming extemporaneous preparations, for local application, by melting or fusing silver nitrate onto suitable metallic instruments such as sounds.

ARGENTI NITRAS FUSUS.—U. S.—Molded silver nitrate contains about 95 per cent. of silver nitrate, with a small amount of silver chlorid, which is added to make the sticks tough and fibrous.

ARGENTI NITRAS MITIGATUS.—U. S.—Mitigated silver nitrate is composed of one part of silver nitrate and two parts of potassium nitrate fused together.

CUPRI SULPHAS.—U. S.—Copper sulphate or blue vitriol occurs as large, transparent deep blue crystals. For external use these crystals may be rasped or filed into suitable shape, and are then used in very much the same way as are the sticks of silver nitrate.

The various uses of these agents are so well known that they scarcely require extended treatment here.

When the lunar caustic is used on exuberant granulations care should be taken to avoid bringing it into contact with the newly formed skin, which is recognized only as a bluish line, since this occasions pain and is, of course, destructive of the very object it is intended to promote.

ARSENIC AND ZINC CHLORID.

ARSENI TRIOXIDUM.—U. S.—Arsenic trioxid, also known as arsenous acid and as white arsenic, occurs most frequently as an odorless and tasteless white powder, that is but slowly soluble in about 100 parts of water.

ZINCI CHLORIDUM.—U. S.—Zinc chlorid occurs as a white granular powder or a porcelain-like mass. It is freely soluble in water, but the solution decomposes, on long standing or boiling, depositing a basic salt.

Arsenic and zinc chlorid have been used to destroy cancerous growths. Arsenic, particularly, has been widely used as the active constituent of various cancer cures that have been proposed by regular as well as irregular practitioners. Its action is very slow, and therefore it can be readily controlled, but it occasions considerable pain. Arsenic may be employed in the form of powder, as an ointment, either with lard or petrolatum, or as a paste. In the latter case the arsenic is suitably diluted with either starch or powdered althæa, and subsequently mixed with water to which a trace of gum or mucilage has been added. At present arsenic is most frequently used for the destruction of the nerves in carious teeth.

Zinc chlorid is now but seldom used for its local corrosive action. It may be used in aqueous solution or fused on to and over suitable metallic instruments, much as silver nitrate is used.

Mercuric chlorid is the most corrosive of the metallic salts, but it is too toxic to permit of its general employment for its local caustic action.

SOME OTHER OFFICIAL CAUSTICS.

ACIDUM NITRICUM.—U. S.—The official nitric acid contains 68 per cent. by weight, of absolute nitric acid, and occurs as a colorless, fuming liquid that is very caustic and corrosive.

LIQUOR HYDRARGYRI NITRATIS.—U. S.—Solution of mercuric nitrate occurs as a clear, nearly colorless liquid, having a faint odor of nitric acid and a strongly acid reaction. It should contain about 60 per cent. of mercuric nitrate and about 11 per cent. of free nitric acid.

UNGUENTUM HYDRARGYRI NITRATIS.—U. S.—Ointment of mercuric nitrate is made by dissolving 7 parts of mercury in 10.5 parts of nitric acid and adding this solution to 76 parts of lard that has, previously, been partially decomposed by 7 parts of nitric acid, and continuing the heat, if necessary, until the reaction is completed. The resulting ointment should have a bright yellow color, whence its popular name, "citrine ointment."

UNGUENTUM HYDRARGYRI AMMONIATI.—U. S.—The oint-

of ammoniated mercury is now directed to be made by mixing 10 parts of ammoniated mercury with 50 parts of white petrolatum and 40 parts of hydrous wool fat.

Nitric acid is a popular domestic remedy for the removal of warts. The surrounding surface should be thickly covered with petrolatum and a single drop at a time of the acid applied to the excrescence.

Emollients.

The word emollient is derived from *emollio*, to soften; demulcent comes from *demulceo*, to smooth. Since the same agent is usually demulcent as well as emollient, the term to be used depends on the tissue to which the agent is to be applied, rather than on the medicinal agent itself. Mucous membranes rarely require softening, but an inflamed skin is frequently hard and rough, we therefore speak of applying demulcents to mucous membranes and emollients to the skin.

Not only bland oily substances and fats, but mucilages and diluted glycerin act as emollients. Glycerin, when diluted with water, and rubbed into the skin, prevents it from becoming dry and harsh, and the tendency to crack. Oils and fats penetrate the skin and render it soft.

SOME OFFICIAL EMOLLIENTS.

ADEPS LANÆ HYDROSUS.—U. S.—This preparation, formerly official as lanolin, is the purified fat of the wool of sheep (*Oris aries*), mixed with about 30 per cent. of water.

GLYCERINUM.—U. S.—Glycerin or glycerol is a clear colorless liquid of syrupy consistence, obtained by the decomposition of vegetable or animal fats. Anhydrous glycerin is slightly rubefacient, but when diluted, as noted above, is an efficient emollient.

MUCILAGO TRAGACANTHÆ.—U. S.—Mucilage of tragacanth contains 6 per cent. of tragacanth and 18 per cent. of glycerin, with water to make 100 parts.

PETROLATUM.—U. S.—Under this general heading the present Pharmacopeia includes what was formerly known as hard and soft petrolatum.

Petrolatum, a mixture of hydrocarbons, of the methane series, is obtained from petroleum and should be of about the consistence of an ointment. The official substance may vary in color from yellow to light amber and have a melting point varying from 45 to 48 C. (113 to 118.4 F.). In addition to this, which is popularly known as yellow petrolatum, the Pharmacopeia also includes:

PETROLATUM ALBUM.—U. S.—This is a white unctious mass, of about the consistence of ointment, that otherwise has the same chemical and physical characteristics as petrolatum.

PETROLATUM LIQUIDUM.—U. S.—Liquid petrolatum is a colorless or only slightly yellowish, oily transparent liquid without odor or taste, but giving off, when heated, a slight odor of petrolatum.

Of the vegetable oils that are useful as demulcents, it will suffice to enumerate:

OLEUM AMYGDALÆ EXPRESSUM.—U. S.—Expressed oil of almonds.

OLEUM GOSSYPII SEMINIS.—U. S.—Cotton seed oil.

OLEUM OLIVÆ.—U. S.—Olive oil; and

OLEUM THEOBROMATIS.—U. S.—Oil of theobroma, cacoa butter.

Of the several official preparations by far the most popular is:

UNGUENTUM AQUÆ ROSÆ.—U. S.—Ointment of rose water, or, as it is usually called, cold cream. This ointment consists of a mixture of spermaceti, white wax, expressed oil of almonds, sodium borate and rose water, and in one form or another has been the most popular of the mild emollients from the time of its originator, Galen.

Emollients are used for the protection of inflamed skin against irritants, the choice depending on individual preference or convenience rather than on the nature of the drug. Thus mucilage of tragacanth, ointment of rose water and petrolatum differ widely in their physical properties, but they are all used for chapped hands, sunburn, and to soften the skin when it is rough and hard.

The bland oils and ointments penetrate the skin more readily than does diluted glycerin, and, therefore, they are to be preferred as emollients when they are also to serve as carriers of medicinal substances intended for absorption.

Diluted glycerin is an excellent agent for softening the skin, but is somewhat irritant, and when the sensitive layers of the skin are exposed, a bland oil or ointment, such as cold cream, is to be preferred.

To prevent chapping of the skin when it is exposed to the wind, to alternate wetting and drying, or to irritants, the mucilage of tragacanth, preferably mixed with equal portions of glycerin, will be found useful. The exposed surface is washed with warm water and soap to soften the skin, and while still moist, but not wet, a little of the mucilage, or the mixture of mucilage and glycerin, is rubbed into the surface until the latter feels smooth. Instead of the tragacanth mixture the following may be preferred by some, but it is somewhat irritant to very delicate skin:

One ounce of glycerin soap is reduced to shavings and dissolved with the aid of gentle heat, in half a pint of equal parts of glycerin and water. This mixture solidifies on cooling, and a piece about twice the size of a pea is to be rubbed into the moist skin as often as may be necessary. Those who work with irritant or corrosive chemicals will find this an excellent agent for keeping the hands soft.

A liquid preparation that has met with considerable favor may be made by mixing ten parts of tincture of benzoin, fifty parts of water, and forty parts of glycerin. To secure a homogeneous mixture the water should be gradually added to the tincture of benzoin and the glycerin added to this mixture. If the resulting mixture should still be irritating the amount of glycerin may be further reduced, with a corresponding increase in the quantity of the water. If rose water be substituted for the water in the above formula the resulting mixture would simulate some of the well known and widely advertised proprietary toilet preparations of glycerin and roses.

Clinical Notes

TUMOR OF THE CECUM AND ASCENDING COLON; REMOVAL AND RECOVERY.*

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History.—The patient, a lady aged 56, unmarried, was admitted to my infirmary as the patient of Dr. E. J. Wannamaker of Columbia, S. C. She weighed about 96 pounds, being emaciated from twenty years of gradually increasing intestinal obstruction. No bowel movement could be had except in response to patient, persistent and painful effort, both by enemata and by powerful purgatives. In consequence her suffering had gradually increased, each exacerbation becoming more and more pronounced till her condition was that both of physical suffering and mental anguish, which only slowly increasing intestinal obstruction can induce.

The patient periodically eructated quantities of gas and vomited nearly all liquids and nourishment. Anodynes gave her her only relief, except occasionally when in response to cathartics, and by dint of much suffering, a few drams of fecal matter would pass.

Examination.—The abdomen was enlarged from chronic gaseous distension and fecal retention. Through the thin parietes could be plainly seen the peristaltic waves in their oft repeated attempts at emptying the bowel of its contents. There was a mass in the right iliac region extending upwards in the direction of the right kidneys.

Treatment.—Patient was surely but slowly failing, and operation, which Dr. Wannamaker requested me to perform, was done for the first time Sept. 30, 1904. On account of her condition nothing more was anticipated than the relief of possible constricting bands of adhesion or perhaps the evacuation of any fluid that might be encysted. The tumor proved to be one of the head of the cecum and the entire ascending colon surrounded by a mat of intestinal adhesions throughout

* Read before the Tri-State Medical Society of the Carolinas and Virginia, White Stone, S. C., Feb. 18, 1906.

its extent. The patient being unable to endure a radical operation a right inguinal ileostomy should undoubtedly have been performed, but having promised before operation not to leave her with an artificial anus under any circumstances, we were compelled to content ourselves with snipping a few adhesions and closing the abdomen.

To our great surprise the patient evidenced remarkable recuperative powers, and although the obstruction was not in the least degree removed, she was still alive at the end of two weeks. At this junction patient consented to an artificial anus, provided we promised to do a subsequent operation and remove it. Accordingly, Oct. 15, 1904, the second laparotomy was performed and a right inguinal ileostomy established. The incision was made in the line of the preceding one, and a loop of ileum two inches from its termination in the cecum was brought out and suspended on a glass rod by running the same through the mesentery, after the manner of Grieg Smith, and the redundant incision closed. In twenty-four hours the ileum was opened. The relief from suffering was magical, as would have been expected. Recovery was rapid, appetite returned, and patient was given six weeks in which to go home and recuperate. At the end of this time she returned, much increased in weight, looking well, and according to her statement, feeling better than she had in ten years.

A third abdominal section was performed Dec. 28, 1904. Incision was made in the left inguinal region, and the ileum was resected (intra-abdominally) two inches from its termination in the artificial anus. The distal end was inverted and closed by a silk purse string suture. The free proximal end was implanted by Murphy button into the lower end of the descending colon just above its passage over the pelvic brim—the operation constituting technically a left inguinal ileo-colic implantation. It was with some hesitancy that the Murphy button was used in this procedure as the colon was so narrowed and shrunken from years of comparative disuse that it was at first doubtful whether or not the button could ever pass through. It was, however, finally adopted. The bowels moved naturally in forty-eight hours. The patient said this was the first natural and comfortable bowel movement she had had in approximately fifteen years. The button was passed on the twenty-second day. Nothing thenceforth passed through the artificial anus but an occasional drop of mucus, and patient was dismissed for another holiday.

March 31, 1905, she returned in excellent condition, the fourth and last laparotomy was done, the old scar of the first two operations in the right iliac fossa was dissected out, and the abdomen opened. Many old and dense adhesions were broken up and the cecum with the appendix buried in a tumorous mass, the entire ascending colon up to and including a portion of the hepatic flexure and the four inches of ileum leading up to the ileo-cecal juncture constituting the artificial anus all removed in one mass. The distal end of the hepatic flexure was inverted with silk purse-string. The abdomen was closed, and April 28, 1905, the patient was dismissed without obstruction, without tumor, and without artificial anus, and in excellent health and comfort.

Owing to an oversight, the microscopic nature of the tumor was not determined, but from the history of the case, the absence of mesenteric lymphatic involvement, the macroscopic appearance of the growth, together with the subsequent conduct of the case, I believe that there was nothing malignant. I judge it to have been fibrolipoma. Operation, however, was just as essential as if it had been malignant. For a distance of six inches the caliber of the ascending colon through the tumorous mass was reduced to the size of a goose quill.

The case emphasizes the value of intermittent surgery in certain intestinal conditions where there is a neoplasm, stricture, volvulus, or other obstruction to be removed and where the patient's physical condition debars an immediate radical procedure. A quick, clean enterostomy or colostomy in these cases is, indeed, one of the most valuable resources known to surgery. Whether the obstruction be acute or chronic, when the patient's ability to endure a radical operation has long since vanished, a timely opening of the bowel just above the seat of obstruction is a procedure to which every such victim is most honestly entitled. By this means the patient is immediately given a respite from his suffering and an opportunity to gain sufficient strength for whatever radical operation should be attempted at a later date.

Another point which this case illustrates is the "resisting power" so often evidenced by those who have been invalids for years. There is no doubt that old chronics oft times show a most remarkable ability to withstand the exhausting effect of surgical procedure. The intestine, from long-continued overdistension from gas, has acquired a degree of toleration which is truly astonishing, while from chronic fecal retention there results a degree of acquired immunity from intestinal toxemia which undoubtedly contributes largely to the actual recovery of these cases after operations. These facts should not be lost sight of in estimating the probable termination of any prospective operation on such cases. It must ever be remembered, too, that in *acute* obstructions the effects of gaseous and fecal distention are quite the opposite. In a subject who is accustomed to daily normal bowel movements, the obstructive retention can not but result in a deleterious amount of autointoxication, while the sudden, unusual and persistent gaseous distension is sure to induce a degree of intestinal paresis which, even after the relief of the obstruction, may be sufficient to produce death.

Thus it would seem that in chronic cases the intestinal canal is one of the most tolerant of all of the abdominal organs, while in acute conditions, especially acute obstruction, it is one of the most easily damaged.

All intestinal neoplasms should be operated on early, for, whether malignant or benign, the inevitable tendency is toward obstruction. The condition is strictly surgical. Palliative treatment leads only to a lowered vitality and an increasingly difficult operation. In view of the prompt and kindly healing of every portion of the intestinal tract, the operative outlook in regard to this organ is one of the brightest of modern surgery.

A NEW METHOD FOR THE DETERMINATION OF LEAD IN THE URINE.

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In examining two specimens of urine for lead in Prof. Charles S. Williamson's clinic at the College of Physicians and Surgeons, Chicago, I experienced great difficulty in using the different methods, inasmuch as some take too much time, some are not sufficiently sensitive, while others require expensive apparatus. Considering the fact that the amount of lead found in chronic poisoning rarely exceeds 10 mg. per liter, the method must be exceedingly sensitive. The methods heretofore used are that of Fresenius and Babo as described in v. Jaksch "Klinische Diagnostik," and that given by E. E. Putman in Keating's "Clycopedia of the Diseases of Children." Both of these methods require a great deal of time and considerable chemical training. Two other methods, very simple, but not sufficiently sensitive, are those of v. Jaksch[1] and I. H. Abram.[2]

An electrolytic method was worked out by S. R. Trotman and F. H. Jacob.[3]

1. "Klinische Diagnostik."
2. The Lancet, London, ———, 1897.
3. British Medical Journal, ——, 1903.

This method has several advantages and does not consume a great deal of time, but requires an expensive platinum dish and an electric battery, neither of which is apt to be in the possession of the average practitioner. Other metals, if present in the urine, may lead to an erroneous conclusion.

It was my intention to find a method which would be reliable, free from fallacy, sufficiently sensitive, which could be performed by every physician, required but little chemical training, and for which the material could easily be obtained. As the destruction of organic matter is absolutely necessary I found potassium persulphate in sulphuric acid solution the best means for this purpose. Strong sulphuric acid alone does not work satisfactorily and potassium chlorate and hydrochloric acid work too slowly and give off disagreeable fumes of chlorin gas.

Five hundred cubic centimeters of the urine to be examined are placed in a porcelain dish (lead free) or in a sufficiently capacious beaker, and about 70 c.c. of concentrated sulphuric acid (free from metals) are added and the combined amounts are heated over a Bunsen burner. Potassium persulphate is added in small portions to the amount of 20 or 25 grams. The urine which is colored red by the addition of the sulphuric acid is only slightly yellow when boiling starts; the urine, probably cloudy before, almost instantly becomes clear and transparent. It is then evaporated to about half its volume.

Should the solution become cloudy during evaporation a small amount of concentrated sulphuric acid is added and the boiling continued for about ten minutes. A few crystals of potassium persulphate should be added in case the urine darkens again during evaporation, but care should be taken to remove the burner first to prevent the liquid from boiling over. This procedure is only occasionally necessary as the urine generally remains clear, and slightly yellowish. After the urine has evaporated to about 250 c.c. it is allowed to cool and about 250 c.c. alcohol (90 vol. per cent.) is added. It now is allowed to stand about four hours in a cool place; during this time the smallest amount of lead is precipitated as insoluble sulphate. The evaporation of the urine can also be carried on till less than half its volume remains, but an equal volume of the alcohol should always be added.

The solution is then filtered through a quantitative filter, washed with hydrochloric and fluoric acid, and the beaker or dish carefully washed out with alcohol. Washing the filter is only necessary once to remove coloring matter. A clean small beaker, or test tube, is put underneath the funnel, and a small hole is punched through the tip of the filter with a clean glass rod. Everything on the filter is then washed down carefully with distilled water from a wash bottle, care being taken not to get too much fluid. If carefully handled not more than 10 c.c. are required. Care also should be taken to remove all particles left on the small glass rod. If considerably more than 10 c.c. is used the solution can be evaporated again if a quantitative determination is wanted. For qualitative determination it does not matter if a few c.c. more or less of distilled water are present. The solution in the test tube now contains all the lead of the 500 c.c. urine, if such was present, in the form of an insoluble sulphate of lead. The amount is sometimes too small to be observed as a precipitate with the naked eye. It might be only a slight cloudiness, hardly visible. The solution is heated over the Bunsen burner and crystals of sodium acetate are added till the solution appears entirely clear and transparent. After the solution is cleared up it is allowed to cool and hydrogen sulphid gas is passed through it. The slightest yellowish-brown discoloration proves the presence of lead.

The test for lead with hydrogen sulphid gas is one of the most sensitive in analytical chemistry. To prove the limitations of the test I performed several experiments and found that 2 c.c. of a 0.002 per cent. lead acetate solution made up to 10 c.c. with distilled water still gave a very slight yellowish discoloration if the solution is looked at from above. This would correspond to 0.00002 gm. lead. It is preferable to pass the gas also through a test tube containing the same amount of distilled water, inasmuch as a slight discoloration can be easily differentiated by comparing the two solutions after the gas has been passed through. Five minutes is sufficient for the passage of the gas.

A great advantage of this method is that even if bismuth is present in the urine it will not interfere with this test, neither will any other substance likely to be present. By comparison with artificial lead solutions containing 1 mg., 2 mg., 3 mg., etc., of lead per liter, a simple quantitative colorimetric method can be established (One part lead acetate crystal contains 0.54 parts of lead.)

Sensitive as the reaction is, it takes but little training to perform the described determination most accurately. If 500 c.c. are taken originally the amount of lead found must of course be multiplied by two in order to get parts per liter. In the two specimens mentioned in the first part of this article I was able by this method to detect 5 mg. in one case and 3 mg. in the other.

The advantages I claim for this method are accuracy of the determination, rapidity with which the determination can be made, and simplicity of technic.

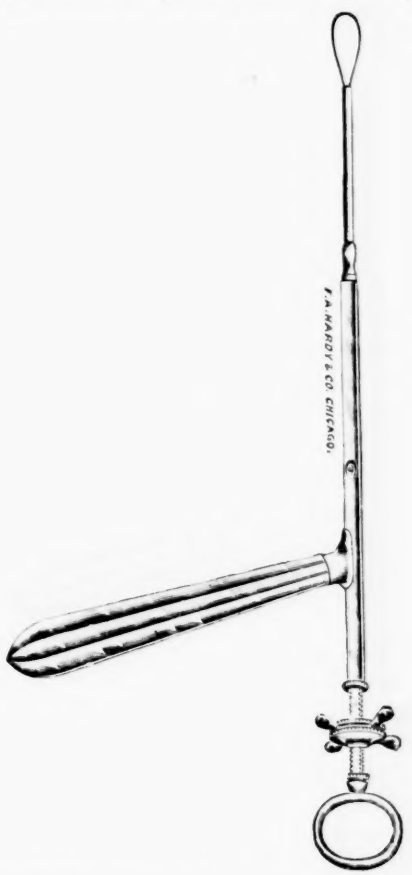
New Instrument

A TONSIL SNARE.

J. A. PRATT, M.D.
AURORA, ILL.

In presenting this tonsil snare to the profession I wish to recommend its simplicity, strength, lightness and cheapness.

The instrument consists of three parts: The shaft, with handle, the stylet and the tip. In place of the straight tip the



different size Vedder tips can be used, all of which are easily taken apart and cleaned.

Wire from Nos. 5 to 8 can be used. The instrument weighs four ounces.

After the tonsil is dissected free from the pillars and the loop is passed over it to the base, by a slight pull on the ring in the end of the stylet the loop is drawn tight and the set-screw is twirled down by the finger setting the loop. The tonsil can now be quickly and easily ecrased.

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SATURDAY, MAY 26, 1906.

INSTRUCTION IN OPERATIVE MEDICINE.

In a recent address at New Haven, Dr. Harvey Cushing[1] discusses certain newer developments in the teaching of surgery, or operative therapy, and, inasmuch as the fundamental ideas are of great importance to medical men in general, a brief summary, with comments, may not be without some value. Cushing emphasizes very forcibly the fact, perhaps not so thoroughly understood as it should be, that the essential distinction between surgeons and physicians, between surgery and medicine, as these words are usually employed, lies not in any fundamental differences in general principles or in early training, but wholly in the degree to which manipulative or operative therapy is employed in these two great but largely artificial subdivisions of medicine.

In his daily work the physician employs various essentially surgical methods for diagnosis and treatment, e. g., aspiration of pleural and other cavities, meningeal puncture, etc., methods that require rigid observation of surgical cleanliness, and he early learns to realize when the limits of his operative skill are reached. It is the major forms of operative procedure that, especially in the larger cities, are given over to the surgeon, who, unless he chooses to be a mere handicraftsman, an operator pure and simple, and to occupy no higher plane than the cutter for hernia and stone of a few centuries back, must ever endeavor to maintain familiarity with disease and its diagnosis both at the bedside and in the laboratory, and especially so in these days when anesthesia and surgical cleanliness have made it possible more and more to apply operative therapy to disturbances of visceral functions and structure. Assuming that these general considerations rest on a sound basis, how may the most sympathetic relations be established between "the species surgeon and the species physician" and how may the surgeon best guard himself from losing touch with general medicine so that his chosen branch of it be not made into a mere trade?

Cushing believes that these desirable developments may be favored by certain changes in the manner in which the subject of operative surgery is presented to the student. At first surgery in our medical schools was taught largely by didactic methods, the dissecting room furnishing the only opportunity for acquiring manual dexterity. To Langenbeck is given the credit of having added to the curriculum a practical course in operative surgery on the cadaver, and now our medical schools are supposed to give their students courses of this kind (we fear that in many cases they are given hurriedly and somewhat perfunctorily). But didactic lectures, amphitheater clinics and operations on the cadaver can not impart in the right way to the student the underlying principles of aseptic operative technic on the living subject, and to remedy in some measure this defect, as well to study the diseases that invite operative treatment, there was established in 1901, under Cushing's direction, a course for undergraduate students in operative surgery on living animals, especially dogs, normal and diseased. Largely for this purpose a building, the Hunterian Laboratory of Experimental Medicine, has been specially constructed. We can not enter on a discussion of the details of the course or of the arrangements of the building; both present many points of interest. The point for special emphasis is that actual surgical work and training under favorable conditions have been organized for undergraduate students and put into what seems to be successful, practical operation. The two main purposes one may hope to accomplish in some degree by such a course are "practical finger-end knowledge" of the principles of modern surgical technic and asepsis and to inculcate the fact that "the operation is not the beginning and the end of surgery, but a therapeutic measure alone, and that those employing this manner of treatment must have the same knowledge of disease, the same ability to make examinations, the same instincts to follow pathologic material to the laboratory and to investigate there the causes and symptoms of disease as should characterize any other member of the body medical."

After giving due allowance to the attractiveness of a course like this on account of its very novelty and because of its idealistic program, it is, indeed, difficult to escape the conclusion that its inauguration marks a definite advance in medical teaching. We say medical teaching because the advantages of a course of this kind must be just as great to the future non-operating as to the operating physician. Certainly the principles of asepsis can not be too strongly impressed on the physician, whatever his future work may be. It is plain, too, that a course like this fits the student directly for immediate practical responsibilities which is especially desirable in the unfortunate event that his medical course can not be supplemented by actual service as interne under competent teachers in a good hospital (which, by the way, in time, and let us hope before too long, must be required of all applicants for license to practice). Various side issues also press in for consideration, only one of which can be mentioned, namely, the great influence which work of this kind eventually is bound to exert on veterinary medicine.

1. Johns Hopkins Hospital Bulletin, 1906, vol. xvii, p. 123.

THE CHEMISTRY OF TUMORS.

Chemical investigations of tumors have been relatively few in number, but so far as they have yet been made there has been little found indicating any important deviation of the chemical processes of tumors from those of normal cells of similar origin. Likewise the chemical composition of tumors resembles closely, on the whole, the composition of the parent cells from which the tumor arose, often to the most minute details. Thus Bang found that sarcomas derived from lymph glands contain the particular nucleoproteids that are found normally only in lymph glands; hypernephromas contain, like adrenal tissue, much fat, lecithin and cholesterin; squamous carcinomas develop great amounts of keratin; while carcinomas of mucous membranes often contain great quantities of mucin.

Many investigators have sought in cancer tissues a poison that might account for the cachexia characteristic of new growths. Extracts have been obtained that were destructive to red corpuscles (hemolytic) and that were sometimes slightly toxic to animals, but the results have not been sufficiently striking to account for all the features of cancer cachexia. Because of the abundant areas of anemic necrosis in malignant tumors, autolysis often occurs extensively, and the products of this self-digestion are both hemolytic and toxic to a certain degree, which probably explains the experimental results, but scarcely accounts for the cachexia. As yet no substance has been isolated from or detected in malignant growths that is peculiar to them and not found in normal cells; and much less has any substance been found that will account for the occurrence of tumors or for the results they produce.

Recently a number of interesting positive findings have been made, and, although they have not as yet served to elucidate any of the problems of tumor pathology, yet they possess sufficient interest to repay a brief review. Wolff[1] has studied the proteids contained in the juice expressed from cancer cells, and found that it differs from the juice of normal cells in containing a very much smaller proportion of globulins as compared to the albumins; qualitatively, however, no differences between cancer proteids and normal proteids could be detected. Bang[2] has found that sarcomas derived from lymph glands contain the particular nucleic-acid-histon compound that is characteristic of normal lymphatic tissues, and believes that it is possible to prove chemically the origin of a round-celled sarcoma from lymphatic tissue by a simple chemical test for the histon-nucleinate. Bergell and Döringhaus[3] have studied the structure of the proteids of tumors by isolating the amino-acids by Fischer's ester method, and have found them quite different from ordinary tissue proteids. In the material they examined, which consisted of a mixture of several varieties of carcinoma and a sarcoma, they found relatively high proportions of alanin, glutaminic acid, phenylalanin and asparginic acid, while leucin was relatively small in amount, and glycocoll and tyrosin were also very scanty. These results are important, but need confirmation with pure materials and on a larger scale.

There has been much interest concerning the glycogen of tumors, particularly because of the view advanced by Brault and others that glycogen is a characteristic of fetal tissues in particular, and that, therefore, the proportion of glycogen present in a tumor is an expression of the degree to which it has reverted to the fetal type, and, therefore, an indication of its malignancy. This idea has been found to be entirely erroneous, and the amount of glycogen that a tumor contains seems to depend on two chief factors: (1) The embryonal origin of the tumor, those arising from tissues normally rich in glycogen (e. g., cartilage, squamous epithelium), containing most glycogen. (2) The presence of areas of degeneration from impaired cell nutrition, which leads to glycogenic infiltration alike in tumors and normal tissues (Gierke). Lubarsch[4] reports the results of the examination of 1,554 tumors for glycogen, with positive results in 447, or 29 per cent. It was present in all teratomas, rhabdomyomas, hypernephromas and syncytiomas; in 70 per cent. of the squamous carcinomas, but never in mucoid or colloid cancers; in about 50 per cent. of the sarcomas; but rarely, indeed, in fibromas, lipomas, gliomas, and adenomas. Of other carbohydrates in tumors the pentose group has been especially studied by Neuberg and by Beebe,[5] the former believing that the production of pentose in autolysis is quite characteristic of tumor tissues, the latter finding no characteristic features in the occurrence of this substance. Beebe, however, has advanced the interesting suggestion that a tumor metastasis frequently resembles chemically the organ in which it grows, quite as much as it does the tissue from which it arose, if not more. This observation is quite important, suggesting that the microscopic features of a growth may follow quite different laws from its chemical features, since the former remain true to the tissue giving rise to the tumor, and never irritate the tissue in which the metastasis may have been implanted.

The same author, in a study of the inorganic constituents of tumors, found evidence that potassium is quite prominent in rapidly growing tumors, while in slower growths the potassium sinks and the proportion of calcium increases. Clowes and Frisbie,[6] studying the same question in experimentally produced tumors in mice, with which the age and rate of growth could be well controlled, came to similar results. This agrees with the known importance of potassium for actively growing cells in plant life and in the lower animal forms.

1. Zeits. f. Krebsforschung, 1905, vol. iii.
2. Hofmeisters Beitr., 1903, vol. iv, p. 368.
3. Deut. med. Wochft., 1905, vol. xxxi, p 1426.
4. Virchow's Arch., 1906, vol. clxxxiii, p. 188.
5. Amer. Jour. of Phys., 1905, vol. xiv, p. 231.
6. Ibid., p. 173.

Martha Tracy[1] found nothing characteristic concerning the location or quantity of iron and phosphorus in tumors.

That tumors should show, on the whole, so little variation in chemical composition from normal tissues is not surprising, if we stop to consider a number of well-known facts concerning their biology. The metabolic products of tumors, as well as their histologic structure, vary little from those of the parent tissue. Thus metastatic growths of thyroid tissue will produce thyroiodin in the most remote parts of the body; metastases from carcinomas of the liver may produce bile when located in the lung or any other organ; tumors from the choroid or from pigmented moles produce melanin that seems to be quite the same as the normal melanin. If tumor cells are able to produce such complicated metabolic products as these, which are quite specific for the tissues from which they are derived, there can be little question that the course of chemical processes in tumors must be almost or quite identical with the chemical processes of normal cells of similar origin.

PSYCHIC RESEARCH.

Such subjects as apparitions, psychism, spiritualism and the like have been so much exploited by charlatans and pseudo-scientists, with interests so obviously personal and selfish, that reasonable men, honestly desirous of ascertaining the truth, have generally abandoned this field. Professor Hyslop, however, is an honest, earnest searcher for the truth, and his latest book, "Enigmas of Psychical Research,"[2] is entitled to scientific consideration, even though this must be quite adverse to his position. He accuses scientific men, especially "physical" or "materialistic" scientists, of purposely and even maliciously ignoring the work of those engaged in psychic research, of a very culpable indifference to supernormal or metaphysical phenomena. "Science," he declares, "having become accustomed to residual facts within its own domain, is loath to admit the existence of facts which limit that domain or demand the acceptance of a larger than the ordinary material world." Let us inquire how just are these accusations:

Charles Darwin some thirty years ago, when spirits were rather rife in England, was invited to inquire into their nature and habits. Though skeptical, he respectfully and attentively considered the subject and got Huxley to help him. The latter visited a seance held in a private house and reported to Darwin that "the performance was as gross an imposture as ever came under my notice." Professor Darwin, who was also present, declared: "Unless I had seen it I could not have believed in the evidence of any one with such perfect good faith as Mr. Y. (the host) being so worthless. It has given me a lesson with respect to the worthlessness of evidence which I shall always remember, and, besides, will make me very diffident in trusting myself." Charles Darwin concluded concerning the medium on this occasion who "had the highest credentials": "To my mind, an enormous weight of evidence would be requisite to make one believe in anything beyond mere trickery"; and again: "The Lord have mercy on us all if we have to believe in such rubbish." Tyndall, who investigated "spirits" exhaustively, has described his many difficulties in conducting a thoroughly scientific investigation in the presence of believers or, shall we say, gullible people. He could not persuade them to employ such ordinary precautions as are essential to investigate these phenomena; and he clearly demonstrated their fraudulent character. Prof. Simon Newcomb, who was perfectly willing to oblige the spiritists and to study the phenomena which interested them, has left in his "Reminiscences" diverting accounts of how he found it impossible to continue on the farcical lines laid down by them. Faraday, at the cost of much time and trouble, convinced all who were open to conviction that fraud and self-deception were at the bottom of most of the spiritist doings with which he came in contact. He was shocked at "the superstitions which in this day of boasted progress are a disgrace to the age and which afford astonishing proofs of the vast flood of ignorance overflowing and desolating the highest places."

If these great names do not suffice Professor Hyslop we would add that Podmore, who was president of the Psychic Research Society, demonstrated in his book, "Studies in Psychic Research," the preposterous and flimsy basis for most of the "established facts" on which spiritism was founded. This book, by the way, is a splendid exposition of the laws of evidence which should obtain in any investigation, and is well worth the perusal of both physicians and lawyers. Jastrow, in his "Fact and Fable in Psychology," submits some very illuminating data. Balfour, the recent British premier, as the result of an exhaustive study of psychic phenomena, has become the most conspicuous modern example of the "philosophic doubter." Among the great men in science who have taken up this subject was Wallace, who has been characterized as a "willing believer"; this should not surprise any one who has noted how "easy" Wallace was in the hands of the anti-vaccinationists.

Professor Hyslop does not help his position by such characterizations as "physical" or "materialistic" scientists. Herbert Spencer, the great formulator of the doctrine of evolution, was justly impatient of those who held that doctrine to be purely materialistic. His "First Principles" begin with an earnest and reverent consideration of the immaterial "unknowable" whence is derived so much of the knowable as finite human wis-

1. Jour. Exper. Med., 1905, vol. vii, p. 1; Jour Med. Research, 1906, vol. xiv, p. 447.

2. Enigmas of Psychical Research. By J. H. Hyslop, Ph.D., LL.D., Formerly Professor of Ethics and Logic in Columbia University, Author of "Science and a Future Life," etc. Cloth. Pp. 425. Price, $1.50 net. Boston: Herbert B. Turner & Co., 1906.

dom can by patience and reason come to understand. Science is knowing; and the real scientist is eager only for the truth, no matter where he may find it or whither it may lead him. Each worker gathers what he can within his own ken, insisting only that his facts shall be true and absolutely incontrovertible; and all which he gathers together he gladly adds to the sum of all science or knowing, which is philosophy, in the hope that his gleaning may redound to the welfare and happiness of his kind.

DISPENSARY TREATMENT FOR TUBERCULOUS WORKING PEOPLE.

The journey of the tuberculosis exhibit through the country has been marked by a distinct awakening of public sentiment on this subject in each city which has received it. The exhibit, covering, as it does, the sociologic aspect of tuberculosis, has stimulated the interest of philanthropists as well as physicians and we hear of new plans for various preventive measures in many of our larger cities. It is generally conceded that what is most needed at present is the development of home treatment and, therefore, of special dispensaries for the tuberculous. Without in the least detracting from the value of sanatorium treatment, it must be admitted that its field is limited, for working people can not, in the great majority of cases, undertake a course of treatment which necessitates giving up their work. Sanatorium treatment, while always the ideal, is, as every one knows, applicable only to the favored few. Moreover, there are certain advantages which home treatment will always have over sanatorium treatment. The patient who is treated in a sanatorium, on his return home, must change his habits of life, his home surroundings, often his working place in accordance with the hygienic rules which he has learned at the sanatorium. The patient treated at home makes these changes as he goes gradually, as a part of his cure. The sanatorium patient must seek a new medical adviser on his return home, the home patient is throughout under the same control. Statistics show that relapses after discharge from sanatoria are deplorably frequent owing to the patient's slipping back into his old habits. Sanatorium treatment usually can be given only for a short period of time—three months is the average in the workingmen's sanatoria in Germany—but the treatment of tuberculosis must often be carried on for years.

Now, if home treatment is to be given, part of it must be given in connection with special dispensaries, for many patients can not pay even a small fee for treatment extending over many months and requiring frequent visits to the physician. According to the directory of institutions and societies dealing with tuberculosis which the Tuberculosis Committee of New York has published, there are at present in the United States nineteen special dispensaries for the treatment of tuberculosis, seven of them being in New York City. Only three, however, are reported as offering treatment to patients at hours which will not interfere with their work. Day dispensaries provide fairly well for patients among the working classes who need but few treatments or are incapacitated temporarily and not working, but for consumptives who are in the early stages and who can not cease work without becoming dependent or plunging their families into poverty, the day dispensaries can do little, and the workingman finds that medical treatment is beyond his reach until such a time as he shall have become unable to work, until, that is, the hopeful period of his disease is passed.

Physicians who have charge of consumptives in private practice know that it is necessary to see these patients far more frequently than the disease really demands, for patients of this class need encouragement, sympathy, the feeling that they are not being neglected and constant urging to persistence and to self-control. Working people can have such constant oversight only in a dispensary and in one which has hours adapted to their needs. Such dispensaries should be open from 6:30 to 8:30 in the morning and for an hour or two in the evening. It is also advisable that they be open for certain hours on Sunday, which hours could be set apart for physical examinations, the weekly weighing, the more detailed instructions. This adjustment of the hours to the needs of the patients is the most important feature of dispensary work among the tuberculous poor.

THE INFLUENCE OF DEFECTIVE NASAL BREATHING ON GROWTH AND DEVELOPMENT.

Among the functions subserved by the nares in the respiratory process are the heating of the inspired air and the addition of watery vapor, as well as the filtration of particles of solid matter. If this mechanism be deranged from any cause, infection is likely to take place, with resultant catarrhal disturbances and impairment of hearing in case of extension to the Eustachian tube. If nasal breathing be obstructed, especially in children, only imperfect expansion of the lungs can take place and deformity of the chest results. A certain amount of adenoid tissue is present normally in the nasopharynx of healthy children, but an excess appears to cause effects apart from the obstruction of breathing to which this gives rise. The mouth-breathing child with adenoids not alone presents a dull, stupid look, but it also seems intellectually below the average, and it is usually stunted in general growth. The improvement in all directions following removal of such excessive adenoid tissue is a most striking and convincing phenomenon. In a discussion of this subject in a recent communication Dr. P. Watson Williams[1] emphasizes the physiologic importance of the nose in influencing respiratory activity and the pernicious effect of the absence of the nasal respiration, not alone on account of the commonly recognized results of unwarmed, unmoistened and unfiltered air reaching the lungs, but also from the persistent abrogation of nasal respiratory

1. Bristol Medico-Chirurgical Journal, March, 1906, p. 17.

stimulation. At the same time he does not underestimate the factors responsible for the defective physiologic activity of the respiratory centers in children suffering from enlarged tonsils and adenoids, especially chronic sapremia, causing tissue inactivity and hence absence of the normal need for more rapid respiratory exchanges. Children who persistently fail to expand their lungs fully, or in whom the respiratory exchanges are subnormal, are underfed, for a due supply of inspired oxygen is essential for the utilization of food in the processes of internal respiration. Accordingly, after the removal of abnormal conditions in the nose and throat, it is wise to recommend activity in the open air, cold baths and particularly physiologic drill, comprising appropriate respiratory exercises, in order that the listless, partially asphyxiated child may grow up in the fulness of life.

Medical News

ILLINOIS.

Chicago.

New Hospital.—A small neighborhood hospital, with a capacity of 10 beds, is being erected at 264 and 266 West North Avenue and will be ready to receive patients August 1. It will be under the charge of Dr. Frank H. Booth.

Smallpox.—During the week three cases of smallpox were discovered and the patients removed to the Isolation Hospital. Of these one was a resident of the city, 21 years of age, who had never been vaccinated. The second was a colored woman from Texas, who was in the eruptive state on her arrival in the city. The third was a colored man from Memphis, who was in the fifth day of the eruption, on his arrival. Neither of these had been vaccinated. There are now 11 smallpox patients at the Isolation Hospital. Last year at this time there were 85.

Cocain Sellers Convicted.—Albert Dahlberg, a clerk in the drug store of Adolph C. Brendecke, was fined $200, May 8, for selling cocain illegally. On a similar charge Vincenzo Colletto, a druggist at Polk and Clark Streets, was fined $200. Both cases were prosecuted by the authorities of Hull House. The defendant, Dahlberg, claims to be a graduate of Rush Medical College. Dr. Nicholas Rey, 438 Dearborn Street, was fined $200 and costs on a charge of selling cocain, May 10. The attorney for the State Board of Pharmacy announces that he has submitted testified evidence in two of these cases to the State Board of Health and has asked that the licenses of the physicians in question be revoked.

Mortality of the Week.—During the week ended May 19, 652 deaths were reported, equivalent to an annual mortality of 16.59 per 1,000. This shows a great increase over the mortality of the previous week, 583, and a still greater increase over that of the corresponding week of 1905, which was 539. The three days of misplaced midsummer heat are probably responsible for this increase in death rate, especially among the very young, as during the week 33 more deaths of individuals under 5 years of age were reported than during the week previous. Pneumonia caused 138 deaths; consumption, 68; violence, including suicide, 58; heart diseases, 41; Bright's disease, 39; acute intestinal diseases, 35, and cancer, 32.

INDIAN TERRITORY.

Health Board Election.—At the meeting of the Muskogee Board of Health, April 18, Dr. O. C. Klass was elected secretary and Dr. Claude A. Thompson, chairman.

Smallpox.—The public schools of Holdenville have been closed on account of an epidemic of smallpox which has broken out in the city. The disease is of mild type and there have been thus far no serious cases.

Territorial Medical Association.—At the meeting of the Indian Territory Medical Association, held at South McAlester, March 20, it was voted that the association merge with the Oklahoma Medical Association and that a joint meeting be held at Oklahoma City, May 8, 9 and 10. This action was taken in confirmation of an agreement made ad referendum to that end by a committee appointed at the last regular meeting. It is provided, however, that the merger should be void in case the statehood bill should fail of passage. Dr. Floyd E. Waterfield, Holdenville, was elected secretary, vice Dr. Rufus J. Crabill, resigned.

District Association Meeting.—The Medical Association of the Northern District of Indian Territory met at Pryor Creek, May 1. The president, Dr. William T. Tilly, Pryor Creek, read an able paper on organization, urging all physicians in the district to avail themselves of the advantages to be derived from affiliation with the association. The following officers were elected: President, Dr. William T. Tilly, Pryor Creek; vice-president, Dr. Franklin M. Duckworth, Claremore; secretary and treasurer, Dr. Robert H. Harper, Afton; censors, Drs. Benjamin F. Fortner, Vinita; Charles M. Ross, Tahlequah and W. J. Whitaker, Pryor Creek; and delegates to the Oklahoma and Indian Territory Medical Association, Drs. Benjamin F. Fortner, Vinita, and Franklin M. Duckworth, Claremore. The next meeting will be held at Afton in August.

INDIANA.

Pays Fine.—Dr. Harry R. Spickermon, Muncie, pleaded guilty to a charge of assault and battery preferred against him by Harry Levy, May 9, and paid a fine of $11.

State Board of Health Laboratory.—Dr. T. Victor Keene, superintendent of the laboratory of the State Board of Health, Indianapolis, reports that during the month of April 171 tests were made for tubercle bacilli.

Fails to Secure Endowments.—The Indiana University has been unable to provide the library and laboratory equipment necessary to secure the endowments for pathologic research recently offered it at a joint value of $20,000.

Case Dropped.—The State Board of Medical Registration and Examination, which a short time ago revoked the license of Dr. Nelson B. Ross, Muncie, on the ground of unprofessional practice, was ordered by Judge Lefler, on May 3, to revoke the order cancelling the license.

Personal.—Dr. Albert R. Burton, Princeton, underwent operation at St. Mary's Hospital, Evansville, May 4.——Dr. John Williams, Brazil, celebrated his ninety-fourth birthday anniversary, May 9.——Drs. Moses S. Canfield, Frankfort, and William A. Spurgeon, Muncie, have been appointed by the governor to succeed themselves as members of the State Board of Examination and Registration.

Summer Department of Purdue.—The work of the summer school of Purdue University, Medical Department, Indianapolis, will begin May 28 and continue for eight weeks, embracing both laboratory and clinical subjects. Credit of one semester is granted to students who take this course. The work will be as purely practical as possible. The course will be open to all students and graduates of medicine and no tuition fee will be charged.

Councilor District Meeting.—The Eighth Councilor District Medical Society, comprising Madison, Randolph, Blackford, Jay and Delaware counties, was organized at Muncie, May 5. The following officers were elected: Dr. G. W. H. Kemper, Muncie, president; Dr. Jonathan B. Garber, Dunkirk, vice-president; Dr. Maynard A. Austin, Anderson, secretary and treasurer; and Drs. Etta Charles, Summitville, Madison County; Henry C. Davisson, Hartford City, Blackford County; Reuben E. Brokaw, Portland, Jay County; Granville Reynard, Union City, Randolph County, and Winfield S. Brandon, Daleville, Delaware County, censors.

Graduation Exercises.—The annual commencement exercises of the Indiana Medical College, the School of Medicine of Purdue University, were held in Eliza Fowler Hall, Lafayette May 15, when a class of 124 received diplomas. The doctorate address was delivered by Prof. George E. Vincent of the University of Chicago, and Dr. H. McKain was valedictorian. The faculty, student body and friends of the medical department went to Lafayette in a special train chartered by the faculty of the college.——A reception was given May 8 at the sanitarium of Dr. William B. Fletcher, Indianapolis, in honor of the graduating class of Indiana Medical College.——The faculty of the college gave a banquet to the graduating class at the Claypool, May 9, at which Dr. Theodore Potter was toastmaster. Toasts were responded to by President Winthrop E. Stone of Purdue University, Dean Henry Jameson of the local department of the university; Mr. Stewart, president of the board of trustees; Dr. Albert E. Bulson, Fort Wayne, and Drs. Thomas B. Noble, Frank B. Wynn and John H. Oliver, Indianapolis.

LOUISIANA.

Home for Incurables Opened.—The administration office and children's annex of the Home for Incurables, New Orleans, erected at a cost of more than $10,000, were dedicated April 28.

Board Trusts Local Practitioners.—The Louisiana State Board of Health, at its session in New Orleans, April 13, adopted a resolution that "in the event of any report reaching the president of a case of suspicious fever, the committee shall appoint a committee of reputable physicians to investigate the case and accept their report as final."

Smallpox at Munroe.—As a result of the investigation of the smallpox situation in Munroe, Dr. Robert W. Faulke, a member of the board of health, reports that the minimum number of cases is 44, 40 of whom are negroes; that every known exposed person has been vaccinated and that all patients and suspects are being removed to the pest house.

Tulane Graduation.—The seventy-second annual commencement exercises of Tulane University of Louisiana, Medical Department, New Orleans, were held May 3, when a class of 102 received degrees in medicine. The annual report was given by the dean, Dr. Stanford E. Chaille, and the annual address was delivered by Surgeon Joseph H. White, United States Public Health and Marine-Hospital Service.

Personal.—Dr. Charles L. Ramage, Winsboro, has been elected president and executive officer of the Franklin Parish health board.——Dr. and Mrs. Arthur W. De Roaldes left for New York, April 24, on their way to Europe.——Dr. Robert L. Randolph, Alexandria, has been elected a member of the local board of health.——Dr. C. W. Loomis, Lake Charles, was severely burned while endeavoring to extinguish a fire in his office, May 8.

Hospital Alumni Association Meeting.—The Alumni Association of Charity Hospital, New Orleans, held its annual meeting and banquet May 7, at which the following officers were elected: Dr. Eugene H. Walet, New Orleans, president; Dr. Adrian A. Landry, Paincourtville, vice-president; Dr. Narcisse F. Thiberge, secretary, and Dr. E. Loeckert, treasurer. Dr. J. B. Guthrie acted as toastmaster at the banquet. Hon. H. Terriberry responded to the toast "To the Victims," and Dr. Warren S. Bickham, present as the guest of honor of the association, responded to the toast of "The Prodigal Son."

MARYLAND.

Secure Hospital Building.—The managers of the Union Hospital of Cecil County have purchased a residence in Elkton for the proposed institution.

Personal.—Dr. Edward R. Trippe of Easton has been appointed health officer of Talbot County.——Dr. Joseph R. Owens was elected mayor of Hyattsville.——Dr. Jesse W. Downey, New Market, was stricken with paralysis, April 26.

Faculty Will Not Start Journal.—The Medical and Chirurgical Faculty has practically decided not to publish a journal of its own, but to accept the offer made by the *Maryland Medical Journal* with a few slight modifications. The *Journal* has been the official organ of the faculty for the past year.

County Association Election.—The Baltimore County Medical Association has elected the following officers: President, Dr. James H. Jarrett, Towson; vice-president, Dr. William L. Smith, Sherwood; treasurer, Dr. Benjamin Whiteley, Catonsville; recording secretary, Dr. N. R. D. Cox, Arlington, and corresponding secretary, Dr. Richard C. Massenburg, Towson.

Health Board Appointments.—At the semi-annual meeting of the Montgomery County board of health Dr. William L. Lewis, Kensington, was reappointed health officer. The following were appointed vaccine physicians: Drs. H. G. Spurrier, Unity; Vernon H. Dyson, Laytonsville; Horace B. Haddox, Gaithersburg; Augustus Stabler, Brighton; James E. Deets, Clarksburg; Philemon S. Lansdale, Damascus; I. Newton Simpers, Germantown; James H. Stonestreet, Barnesville; Richard T. Gott, Poolesville; Upton D. Nourse, Dawsonville; W. Frawley Pratt, Potomac; C. H. Nourse, Barnestown; Claiborne H. Mannar, Rockville; John L. Lewis, Bethesda; John R. Batson, Spencerville; William T. Brown, Burnt Mills; William L. Lewis, Kensington; Roger Brooke, Sandy Spring; Charles Farquhar, Olney, and F. Green. The vaccine physicians are required to visit the public schools to see that all children are vaccinated. In order to insure complete records of vital statistics, each physician is paid 10 cents for every birth certificate or burial permit. The board of health consists of the county commissioners.

Baltimore.

Milk Exhibit Closed.—The milk exhibit closed May 14, after a week of lectures and demonstrations. It was attended by thousands, as many from out of the city as from within it.

Alumni Meeting.—At the annual meeting of the Alumni Association of the University of Maryland School of Medicine, to be held June 1, Dr. Randolph Winslow, Baltimore, will deliver the oration on "The University in 1871 and 1906."

Suicides.—There were three suicides last week and, according to the weekly reports, 17 suicides in the previous five weeks. It is interesting to note that foreigners predominate. Nearly 60 per cent. were attributable to love; only one of the 17 was colored.

Commencement.—The twenty-fifth anniversary and commencement of the Baltimore Medical College was held May 22. There was a lecture at noon in the assembly room by Prof. Robert W. Johnson on "The Conservative Treatment of Acute Appendicitis." A class of 17 was graduated.

Personal.—Dr. Daniel Z. Dunnott has been appointed surgeon-in-chief of the Western Maryland Railroad.——Dr. Robert S. Kirk has been re-elected superintendent and Dr. John Roth, assistant, at the Baltimore Eastern Dispensary.——Dr. J. W. Baird, assistant in psychology at the Johns Hopkins University, has been appointed to the chair of experimental psychology in the University of Illinois.

Typhoid.—The milk epidemic of typhoid fever, in the northern section of the city, has been causing the health authorities much concern. There have been about 100 cases. Trained nurses have been sent out and the combined efforts of city and state authorities are endeavoring to clear up and arrest the epidemic. Dr. Marshall L. Price of the State Board of Health has been sent out into the country to investigate conditions there. The authorities are disposed to lay the blame on the bad politics in the county. The report of the city health department for the week ended May 19 shows 47 cases of typhoid fever, with only one death.

MASSACHUSETTS.

Personal.—The board of health of Dedham has organized with Dr. Edward W. Finn as chairman.——The board of health of Chicopee has reorganized with Dr. Charles H. Prindle as chairman.——Dr. Perley P. Comey, Worcester, has been appointed lieutenant and assistant surgeon of the Second Infantry, M. V. M., vice Lieut. Thomas B. Shaw, resigned.

Jefferson Graduates Organized.—Graduates of Jefferson Medical College, residing in New England, held a meeting in Boston, May 10, and organized an association to be known as the New England Association of Jefferson Medical College Graduates. The officers of the association are: Dr. Edward L. Parks, Boston, president; Dr. J. Q. Adams McCollester, Waltham, vice-president, and Dr. E. Winfield Egan, Boston, secretary.

Society Meetings.—At the annual meeting of the Essex South District Medical Society, held in Salem, May 8, the following officers were elected: President, Dr. Harry W. Mitchell, Hathorne; vice-president, Dr. Percy C. Proctor, Gloucester; secretary, Dr. George K. Blair, Salem; treasurer, Dr. George Z. Goodell, Salem, and librarian, Dr. Alice M. Patterson, Peabody.——At the annual meeting of the Hampshire District Medical Society, May 11, the following officers were elected: President, Dr. Herbert B. Perry, Northampton; vice-president, Dr. Justin G. Hayes, Williamsburg; secretary, Dr. Arthur G. Minshall, Northampton; treasurer, Alfred H. Hoadley, Northampton, and librarian, Dr. Edward W. Brown, Northampton.——The annual meeting of the Worcester District Medical Society was held May 9, at which the following officers were elected: Dr. David Harrower, president; Dr. Ernest V. Scribner, voce-president; Dr. George E. Emery, secretary; Dr. George O. Ward, treasurer, all of Worcester, and Dr. Jacob R. Lincoln, Milbury, orator.——At the meeting of the Middlesex East District Medical Society, May 9, Dr. Harrison G. Blake, Woburn, was elected president.

"Patent-Medicine" Bill Passed.—The state legislature has passed a bill compelling its manufacturers to publish on the label of any proprietary or "patent" medicine or food preparation the amount of alcohol (if any) which it contains, as well as the quantities of opium or other narcotic. Section 2 states:

> Every package, bottle or other receptacle holding any proprietary or patent medicine or any proprietary or patent food preparation shall bear a label containing a statement of the quantity of any opium, morphine, heroin or chloral-hydrate contained therein, provided that the package contains more than two grains of opium, or more than one-fourth grain of morphine, or more than one-sixteenth grain of heroin, or more than eight grains of chloral-hydrate in one fluid ounce, or, if a solid preparation, in one avoir-

dupois ounce; and the provisions of section nineteen of chapter seventy-five of the Revised Laws shall apply to the manner and form in which such statements shall be marked or inscribed.

Section 3 states:

It shall be unlawful for any person to sell, or to expose or offer for sale, or to give or exchange, any patent or proprietary medicine or article containing cocaine or any of its salts, or alpha or beta eucaine or any synthetic substitute of the aforesaid.

These provisions do not apply to sales made at wholesale, to retail druggists or dental depots, or to physicians, dentists, or regularly incorporated hospitals. This act is to take effect Sept. 1, 1906.

MISSOURI.

Case Dismissed.—In the case of Dr. J. Clement, Kansas City, charged with practicing medicine without a license, the defendant was discharged on the recommendation of the assistant prosecuting attorney, May 2.

Would Enjoin State Board.—Dr. Caleb E. Mathis, Kansas City, appeared before the circuit court at Independence, April 30, and asked for a temporary order restraining the Missouri State Board of Health from revoking his license as a practicing physician.

Licenses Revoked.—The State Board of Health has revoked the licenses of Drs. Charles Palmer, Kansas City, and Mary E. Murphy, St. Louis, charged with criminal practice, and the license of Dr. Earl J. Dennis, St. Louis, charged with allowing another individual to impersonate him.

Personal.—Dr. H. L. Ebert has been reappointed clerk of the Kansas City board of health.——Dr. Albert Vogel has been appointed assistant dispensary physician of the St. Louis board of health.——Dr. and Mrs. John M. Brown, St. Joseph, have returned from Europe.——Dr. and Mrs. Jefferson D. Griffith, Kansas City, have returned after a three months' tour of Europe and Northern Africa.

Commencement Exercises.—The commencement exercises of the University Medical College, Kansas City, were held April 24. The baccalaureate address was delivered by Rev. C. C. Woods, St. Louis, and Dr. James E. Logan, president of the college, conferred degrees on a class of 49.——At the commencement exercises of the St. Louis College of Physicians and Surgeons, April 23, Dr. John C. Murphy delivered the faculty valedictory, and Dr. Waldo Briggs conferred degrees on a class of 56.

Health Board Appointment Held Up.—The committee on sanitation affairs of the St. Louis city council reported unfavorably on the name of Dr. H. McC. Johnson, recommended by Mayor Wells as a member of the local board of health. The committee explained that it was unacquainted with the physician, that he had been given plenty of time to call on the committee, but up to date he had not put in an appearance at any committee meeting. Final decision was deferred until next meeting, giving Dr. Johnson another opportunity to "come around and introduce himself to the committee." Dr. Johnson afterward received the appointment.

NEBRASKA.

Fined for Obstructing Justice.—Dr. James L. Gandy, Humboldt, was found guilty of obstructing justice and fined $500. He has filed notice of appeal.

Governor Requests Resignations.—Governor Mickey on May 8 called for the resignations of Dr. James M. Alden, superintendent of the State Hospital, Norfolk, and Dr. Frank Nicholson, his assistant, on account of friction which, it is claimed, has made it impossible for the institution to be conducted properly.

X-Ray Damage Suit.—In a damage suit at Center in which $6,000 damages were claimed for injuries alleged to have been received while being exposed to *x*-rays for the purpose of obtaining a skiagraph to locate a stone in the bladder, the jury brought in a verdict for the plaintiff, May 6, assessing the damage at $600 and costs.

Personal.—Dr. G. P. Stokes, an instructor in chemistry at Omaha Medical College, was seriously burned about the face and hands by an explosion of gasoline in the laboratory.——Dr. Simon C. Bedde, David City, has been appointed a member of the board of insanity for Butler County.——Dr. Robert C. MacDonald, Fremont, has been appointed local surgeon for the Great Northern System.——Dr. Voorhees Lucas has been made city physician of North Platte.——Dr. L. R. Craig, Mitchell, has been committed to the state asylum under the provisions of the new dipsomaniac law.

Itinerant Practitioner Fugitive from Justice.—"Dr." W. F. Munroe, an itinerant medicine vendor, calling himself a "Quaker doctor", was arrested in Humboldt, March 31, and trial was set for April 2. A change of venue was taken and the complaint was quashed on an alleged defect. New complaints were made before the county court and a new warrant issued. Thereupon "Dr." Munroe fled precipitately, but was apprehended in a neighboring town and held until service was obtained. He outwitted the officer in whose charge he was placed and escaped, crossing the river to Missouri. As the offense with which he was charged was not extraditable, he escaped by flight a possible fine of $350 and costs.

Hospital Notes.—The Swedish Alliance Home of Mercy and Bethany Hospital Association are raising $25,000 for a new hospital for Omaha, of which Dr. J. O. Nystrom is to be chief surgeon.——The South Omaha Hospital Association, on April 30, formulated plans for the raising of $40,000 for the construction of a new and modern hospital to accommodate at least 40 patients.——The contract for building the Wise Memorial Hospital, Omaha, has been awarded, the contract price being $67,500. The building will be a two-story and basement structure 150x75 feet.——The cornerstone of the Methodist Episcopal Hospital, Omaha, was laid May 24. Bishop Hamlin of San Francisco made an address and the governor of the state presided.

NEW YORK.

No Night Work for Children.—Governor Higgins has signed an amendment to the labor law providing that minors under 16 years shall not be employed in factories or mercantile establishments after 7 o'clock p. m.

Attempt at Arson.—An attempt was made to fire the laboratory of Dr. Edward F. Brush, Mount Vernon, May 13. When the fire was discovered the whole lower floor of the building was found to be saturated with kerosene.

New York City.

Chloroform and Crime.—The Medicolegal Society at its May meeting discussed the possibility of persons facilitating crime by the use of chloroform, and the various phases of the case against Albert T. Patrick were discussed.

Bay Pollution Bill Signed.—Mayor McClellan has signed a bill providing for a commission to consider means for protecting the waters of New York Bay from pollution. The commission will act in conjunction with a similar body from New Jersey.

Personal.—Dr. and Mrs. W. Whitehead Gilfillan and Dr. and Mrs. John G. Perry sailed for Europe on the *Königin Luise*, May 19.—Dr. Emil Heuel gave a dinner on May 16 at the New York Athletic Club in honor of Dr. E. Delgado, minister of foreign affairs of Salvador.

Ambulance Accident.—An ambulance belonging to the Williamsburg Hospital was struck by a street car at Driggs Avenue and South Third Street. The driver received probably fatal injuries and Drs. Rarick and Dangler were incapacitated for service for a considerable time.

Contagious Diseases.—There were reported to the sanitary bureau for the week ended May 12, 1,068 cases of measles, with 32 deaths; 387 cases of diphtheria, with 34 deaths; 340 cases of tuberculosis, with 153 deaths; 56 cases of whooping cough, with 4 deaths; 32 cases of cerebrospinal meningitis, with 32 deaths; 27 cases of typhoid fever, with 9 deaths, and 90 cases of varicella, altogether 2,228 cases, with 294 deaths.

OHIO.

Dr. Haugh to Be Electrocuted.—Dr. Oliver Crook Haugh, convicted of the murder of his parents and brother, has been sentenced to be electrocuted August 29.

Fined for Illegal Practice.—"Dr." D. D. Brice, self-styled "Hindoo witch doctor," was fined $50 and costs in Columbus, May 2, for illegal practice of medicine.

Memorial Meeting.—The Cincinnati Academy of Medicine devoted its regular session of May 14 to memorials of the late Dr. Edward A. Crane, all of the business being relegated to future meetings.

Hospital Staff Election.—At the meeting of the official staff of Aultman Hospital, Canton, the following officers were elected: Dr. J. Frank Kahler, president; Dr. John P. Dewitt, vice-president; Dr. Frank W. Gavin, secretary, and Dr. Alonzo B. Walker, treasurer.

Guilty of Criminal Malpractice.—Dr. David P. Maxwell, Cleveland, has been found guilty of performing a criminal operation, which caused the death of Celia Ritzer, Akron, and sentenced to imprisonment for three years in the penitentiary. Execution of the sentence has been suspended for 30 days in order that an appeal may be made to the circuit court.

Dermatological Society.—Dr. Meyer L. Heidingsfeld, Cincinnati, has been elected as the first president of the Ohio Dermatological Society. It was through the efforts of Dr. Heidingsfeld that the society was organized. Dr. E. Otis Smith, also of Cincinnati, was elected treasurer. The society decided to affiliate with the Ohio State Medical Association.

Personal.—Dr. Curtis Marquart, Osborne, is suffering from septicemia, due to a slight abrasion of the skin.——Dr. and Mrs. Charles G. Foertmeyer, Cincinnati, left for Europe May 7. ——Dr. William H. Humphreys, Yellow Springs, is seriously ill with pneumonia.——Dr. Estell H. Rorick, formerly superintendent of the Athens State Hospital and later superintendent of the Ohio Institution for Feeble-Minded, Columbus, has resigned.——Dr. Otto Huffman has been appointed pathologist of the Miami Valley Hospital, Dayton.——Dr. Nellis C. Satterlee, West Williamsfield, who recently underwent a grave surgical operation at Cleveland, is making a satisfactory recovery.——Dr. Fred A. Cobb has been appointed physician of the Toledo Workhouse, vice Dr. William V. Anderson.——Dr. John B. Kotheimer, Youngstown, has been seriously ill with heart disease.—Dr. Edward A. Montenyohl, Akron, has been elected first vice-president of the Ohio Dermatological Association.——Dr. Millard F. Hussey, Sidney, has been appointed a member of the board of trustees of the Lima State Hospital.

Commencement Exercises.—The fifty-ninth annual commencement exercises of Starling Medical College, Columbus, were held May 3. Attorney-General Wade H. Ellis made the address of the evening, and Dr. O. W. Huntington, president of the board of trustees of the college, presented the diplomas to a class of 30.——Cleveland College of Physicians and Surgeons, Medical Department of Ohio Wesleyan University, held its annual commencement exercises May 2, when addresses to the graduating class were given by Dr. Roland E. Skeel, dean of the college, Rev. Worth M. Tippy and Rev. Herbert Welsh, president of the university. A class of 24 was graduated.—— The fourteenth annual commencement exercises of the Ohio Medical University, Columbus, were held May 1. The principal address was delivered by Rev. J. Knox Montgomery, D.D., president of Muskingum College. Dr. William S. Van Fossen delivered the faculty address, and Prof. W. R. Lazenby, secretary of the board of trustees, conferred degrees on a class of 42. Dr. James U. Barnhill, chancellor of the university, presided.——The annual commencement of the Toledo Medical College was held May 13. President Charles W. Dabney, of the University of Cincinnati, delivered the principal address, on "Municipal Universities," and a class of 9 received diplomas.

PENNSYLVANIA.

Fever-Breeding Parasites Must be Destroyed.—It is the purpose of Health Commissioner Dr. Dixon to destroy the breeding places of mosquitoes in this commonwealth. The task will involve the examination of all places holding or capable of holding water in which the species can breed. Dr. Dixon has employed an expert entomologist to take up the work and map out all the malarial districts in the state. The report of the entomologist will give all conditions supplying the environment necessary to support the lives of the variety of mosquito which carry the poison from one person to another. That this work shall prove most economic, it is proposed that the country surrounding the larger centers of population be investigated and the most dangerous pools and streams be mapped out, starting with the built-up municipalities in the southern part of the state, where malaria is most prevalent. For the purpose of mapping the breeding places it is proposed that the United States geological survey maps be used.

Alienists' Meeting.—The meeting of the Association of Trustees and Physicians of State and Incorporated Hospitals for the Insane of Pennsylvania was held in the Pennsylvania Hospital for the Insane, May 17. Alienists from all parts of the state were present, and both the "county care" and "state care" systems were advocated by the speakers. Dr. John B. Chapin, superintendent of the Pennsylvania Hospital for the Insane, and Thomas C. Zimmerman, trustee of the Wernersville Hospital for the Insane, supported the state institution idea, while Cadwallader Biddle of the board of public charities favored "county care." Dr. Chapin read a paper on "The Care of the Indigent Insane in Pennsylvania." He said without being moved by our sympathies or emotions, it were well if some general agreement could be reached concerning the indigent insane. He would urge that the care of the insane be distinct and separate from that of the county poor who are not insane. He said that it is right to ask that the insane shall be regarded as subject to a condition of disease for which they should be placed under the care of physicians and not so-called wardens or keepers, who are often selected and changed solely according to the dictates of public opinion and not for any special fitness.

The School Vaccination Law.—The State Department of Health is much gratified over the opinion filed by Chief Justice Mitchell in disposing of the famous Waynesboro vaccination case. The people of Waynesboro openly defied the state authorities and, to a certain degree, prevented the enforcement of the vaccination law. The action was followed by litigation which was finally carried up to the supreme court. This tribunal not only sustained the right of the state health board to exercise police powers, but the opinion of Justice Mitchell takes a much wider sweep concerning the value of the statute, which requires that school children must be vaccinated before they shall be admitted to the public schools. The supreme court ruled that the act of 1895 requiring the exclusion from the public schools of children who have not been vaccinated, is a valid exercise of the police power of the state. Chief Justice Mitchell observed that the vast preponderance of opinion among intelligent and educated people is that vaccination is a highly useful ameliorative, if not always a preventive of one of the greatest diseases that has in times past afflicted humanity, and that the regulation of it by statute is not only justifiable, but a wise and beneficent exertion of the police power over the public health. It was emphasized by the Waynesboro contestants that there had been no smallpox in the community for 40 years and that, consequently, the people should not be required to provide by vaccination against possible occurrence of an epidemic. Concerning this Justice Mitchell stated that immunity for 40 years in the past affords no guaranty of immunity for even 40 days in the future, if a chance visitor from an infected locality or a borough resident returning from a visit to such a locality, should bring with him the germs of infection.

Philadelphia.

Bequests.—By the will of the late Laura V. Morrell, the Children's Hospital and the Methodist Hospital each receive $250.

Duehrssen Here.—Prof. Dr. Dührssen, the eminent surgeon, Berlin, Germany, visited this city May 19 and was entertained by Dr. Charles P. Noble.

Hospital Receives New Ambulance.—The Frankford Hospital has received and has put in commission the new ambulance donated by Mrs. Robert H. Foerderer.

Officers Elected.—At the organization meeting of the Northwest Branch of the Philadelphia County Medical Society, May 8, the following officers were elected: Chairman, Dr. Morris J. Karpeles, and clerk, Dr. Howard F. Geisler.

Personal.—Dr. and Mrs. George Fales Baker have returned home from Europe.——Drs. Hiram R. Loux and Robert O. Kevin sailed for Europe, May 19.——Dr. John H. Musser has been selected to deliver the oration on medicine before the Wisconsin State Medical Society, which meets in Milwaukee, June 27.

Examination Notices.—Civil service examinations by the civil service commission men will be conducted on the following dates for the positions named: Superintendent of Philadelphia Hospital, $3,000 a year; chief resident physician of Philadelphia Hospital, $4,000 a year; examination, May 28. Assistant chief resident physician, Municipal Hospital, $800 a year; outdoor physicians, allopathic, for district work, $360 a year; assistant chief resident physician, Philadelphia Hospital, $900 a year; assistant physicians, insane department, Philadelphia Hospital, $1,000 and $800 a year; examination, May 29. Instructor in massage, Philadelphia Hospital, $500 a year; examination, June 1. Milk inspectors, $1,020 a year; examination, June 4.

Health Report.—The total number of deaths reported for the week reached 567. This is an increase of 75 over the number reported last week, and an increase of 111 over the number reported in the corresponding week of last year. Tuberculosis of the lungs alone caused 76 deaths, the largest number in any week in five years. The death rate from typhoid fever was also large, the deaths numbering 31. The principal causes of death were: Measles, 4; scarlet fever, 4; pertussis, 12; diphtheria, 13; meningitis, 3; cancer, 23; apoplexy, 25; heart disease, 55; acute respiratory disease, 73; enteritis, 25; nephritis, 54; premature birth, 14; suicide, 3; accidents, 18, and marasmus, 7. There were 428 cases of contagious disease reported, with 48 deaths, as compared with 414 cases and 36 deaths in the previous week.

SOUTH CAROLINA.

Change of Location.—The office of publication of the *Journal of the South Carolina Medical Association* has been changed from Charleston to Greenville. Dr. J. Wilkinson Jervey is now editor of the *Journal*.

Specialist Acquitted.—In the case against "Dr." I. E. Crimm, Spartanburg, who was charged by the representative of the Spartanburg County Medical Association with violating the state statutes by practicing medicine without having been previously licensed, the magistrate on May 11 decided that the prosecution had failed to make out its case and discharged the defendant.

VIRGINIA.

Meningitis.—It is reported that Franklin, Va., is suffering from an epidemic of meningitis.

Memorial Tablet Unveiled.—A memorial tablet to the late Dr. W. A. Lyne, Jr., was unveiled at the Medical College of Virginia, May 15. An address was made by Dr. G. H. Bowman, representing the adjunct faculty of the college, of which Dr. Lyne was a member.

Semicentennial of Hospital.—St. Vincent's Hospital, Norfolk, celebrated its semicentennial, May 15. Among the distinguished guests were Cardinal Gibbons, Dr. Virgil P. Gibney, New York City; ex-Governor Montague of Virginia, and Dr. J. Allison Hodges, Richmond.

Commencements.—The University College of Medicine, Richmond, conferred degrees on a graduating class of 18, May 17. Dr. Stuart McGuire, president, gave the faculty address and Hon. St. George Tucker was the orator of the evening.——The commencement exercises of the Medical College of Virginia, Richmond, were held May 16; a class of 44 received diplomas.

Personal.—Dr. Otho C. Wright, Jarratt, has been appointed director of the Eastern State Hospital, Williamsburg.——Dr. Henry L. Cabell, Cedarville, is critically ill at a hospital in Winchester.——Dr. Walter A. Plecker, Hampton, has been reappointed health officer of Elizabeth City and County, and Drs. Harry D. Howe, Hampton, and George W. Vanderslice, Phoebus, have been made members of the board.——Dr. James H. Garlick, Petersburg, has been elected a member of the medical staff of the Western State Hospital, Staunton.

WISCONSIN.

Found Insane.—Dr. William H. Rowe, Waukesha, was adjudged insane in the county court, April 26, and committed to the Northern Hospital at Oshkosh.

License Refused.—The State Board of Medical Examiners has refused to grant license to practice medicine to Dr. Edward Newton Flint, because the applicant admitted in his application that he advertised.

Autopsy Worth More Than Ten Dollars.—Judge Fruit has handed down a decision setting aside the action of the Monroe County board in cutting down the bills of Drs. J. Simonson and Charles E. Quigg for performing an autopsy from $50 to $10 each.

The Afflicted.—Dr. Morton K. Green, physician at the Mendota State Hospital, is suffering from appendicitis.——Dr. John R. Minahan, Green Bay, was operated on for appendicitis, March 27.——Dr. Matthew S. Hosmer, Ashland, is critically ill with septicemia.

Report Accidents.—The physicians of Milwaukee are complying with the law passed last year, requiring a report to the health department of every accident which results in incapacitating the injured from pursuing his vocation for two weeks or longer. An average of 175 cases a month has been reported thus far this year.

Seize "Patent Medicine."—Under instructions from the United States revenue department, two United States marshals visited a store in Odanah, on the Red River Indian Reservation, and confiscated hundreds of bottles of patent tonics and preparations containing alcohol. The seizure was made under the law which prohibits the sale of liquor on Indian reservations.

Commencement.—The thirteenth annual commencement exercises of the Wisconsin College of Physicians and Surgeons, Milwaukee, were held May 16. Rev. James C. Hodgins delivered the baccalaureate address, and Dr. A. Hamilton Levings conferred diplomas on a class of 15. At the annual banquet, which was held at the Republican House, Dr. Gustave A. Kletzsch presided as toastmaster.

Joint Meeting.—At a joint meeting of the Northwestern Wisconsin Medical Association and the Portage County Medical Society, April 17, the following officers were elected: Dr. Karl W. Doege, Marshfield, president; Dr. Daniel R. Freeman, Colby, vice-president; Dr. Carl von Neuport, Jr., Stevens Point, secretary and treasurer, and Drs. Levi H. Pelton, Waupaca, George M. Steele, Oshkosh, and Douglas L. Sauerhering, Wausau, censors.

Get License to Practice.—Dr. R. A. Burg, who was refused a diploma and license to practice by the State Board of Medical Examiners on the ground that he was deficient in preliminary education and asked for a writ of mandamus, directing the Milwaukee Medical College and State Board to issue a diploma and license, has had the case decided in his favor by the supreme court and a diploma and license to practice have been granted. The same decision affects six other graduates of the college.

Personal.—Dr. Chester M. Echols, Appleton, has moved to Milwaukee.——Dr. and Mrs. Alexander C. Fraser, Manitowoc, celebrated the twenty-fifth anniversary of their wedding, May 4.——Dr. J. Nicephore Aubin, mayor of Peshtigo, has resigned.——Dr. and Mrs. William H. Judd, Janesville, have returned after a trip to Cuba.——Dr. Gerhard A. Bading has been appointed health officer of Milwaukee.——Dr. John F. Farr has been elected health officer of Eau Claire.——Dr. Lawrence H. Prince, for many years physician in charge of the Palmyra Springs Sanitarium, has gone to Madison, where he will engage exclusively in surgical work. Dr. Searle succeeds him at the sanitarium.

Tuberculosis Exhibit.—Extraordinary popular interest has been aroused in Milwaukee by the tuberculosis exhibit, which was open to the public from May 3 to 19 inclusive, under the auspices of the National Association for the Study and Prevention of Tuberculosis and the tuberculosis commission of the Milwaukee County Medical Society. The collection included the extensive traveling exhibit of the former society and the pathologic collection of the state veterinary, Milwaukee health department, Milwaukee County Hospital and Milwaukee Medical Society. Models and plans for the proposed pavilion for the Milwaukee County Hospital and County Insane Hospital, and plans for the proposed sanitarium for tuberculosis, to be erected at Wales, Waukesha County, were also on exhibition. Popular lectures were given every afternoon by local physicians, and altogether 65,000 people visited the exhibition.

CANADA.

Personal.—Dr. Don. Armour, Toronto University, 1894, and for some time senior demonstrator of anatomy at Rush, has been appointed senior assistant surgeon in the National Hospital, London, Eng.——Dr. A. H. Tuerner of Milton, Ont., has been appointed medical superintendent of the Vancouver General Hospital.

Hospital News.—Grace Rescue Hospital, recently erected by the Salvation Army in Winnipeg, was formally opened May 15.——Increased accommodation has recently been provided at the Toronto Free Consumption Hospital, which treats advanced cases of the disease. Plans are executed for two other cottages soon to be gotten under way.——The quarterly meeting of the governors of the Montreal General Hospital was held April 15. During the first three months of the present year the hospital treated 751 patients. Fifty-two deaths occurred. The outdoor work showed an increase of 672 consultations over the corresponding quarter of last year.——The Toronto Emergency Hospital, which was established eight years ago, has been closed.——Lord Strathcona has donated $25,000 to the Alexandra Hospital for Contagious Diseases, Montreal and $200 to a new hospital at Virden, Man.——The Montreal Dispensary treated 19,195 patients during the past year. Of these cases 9,077 were general diseases; 2,366 diseases of the eye and ear; 1,333 diseases of women; 671 diseases of the nose and throat; 2,771 diseases of the skin; 2,827 diseases of children, and 210 dentistry cases.——The Alexandra Hospital, Montreal, will be ready for occupation in ten days. The medical superintendent, Dr. J. C. Fysche, has just returned from Boston. Appointments to the staff have been made as follows: The three representatives from the Montreal General Hospital are Drs. Blackader, Lafleur and H. D. Hamilton; from the Royal Victoria Hospital, Drs. C. F. Martin, W. F. Hamilton and Beckett; from the Western Hospital, Drs. McConnell and Grant Stewart.

SAN FRANCISCO.

Devise Means for Relief.

Nearly 500 members of the medical profession attended the meeting held May 10 in the auditorium of Cooper Medical College, San Francisco, to devise means for assisting licensed practitioners who lost their homes, offices, books, records and instruments in the earthquake and fire. A resolution was passed asking the San Francisco County Medical Society to reduce its dues to a nominal sum for the next year and to allow all licensed physicians an opportunity of becoming members. A representative from the Santa Clara County Medical Society thanked the assembly for its offer of aid, and said that he was delegated to offer what services he could on behalf of the organization.

Relief Fund.

The California medical relief fund in St. Louis amounts to $908.——Members of the Pasadena Branch of the Los Angeles County Medical Society have thus far contributed $145 toward the relief of their San Francisco brethren.——Smith County (Texas) Medical Society has collected $8 for the San Francisco physicians.——Columbia County (Pa.) Medical Society, at a recent meeting, decided that as a society it would contribute to the relief of San Francisco physicians.——The Southwestern Kentucky Medical Society, at its meeting, May 8, contributed $100 for the San Francisco sufferers.——The Oklahoma and Indian Territory Medical Association, at its meeting May 9, contributed $100 for the San Francisco physicians.——Lehigh County (Pa.) Medical Society has donated $25 to the San Francisco fund.——The Grand Forks (N. D.) District Medical Association has voted $100 for the relief of the practitioners of San Francisco.——At the meeting of the Ohio Medical Association, May 9, aid was voted to the San Francisco sufferers.——The Medical Club of Brooklyn has voted $100 to be sent to the relief of the practitioners of San Francisco, and individual members of the club have contributed an additional $400.——The McLean County (Ill.) Medical Society on April 25 sent a contribution of $90 to Dr. Devine, representative of the American Red Cross, requesting it to be turned over to the proper officers of the Medical Society of San Francisco.

Hospital News.

St. Mary's Hospital, San Francisco, is to be rebuilt, but on a new site. The patients in this hospital were saved by being transferred to a river steamer, and then provided with accommodations in tents on vacant pieces of land owned by the hospital.——At a meeting held May 9, the Agnews Hospital board of trustees resolved to ask the governor for special aid through legislative enactment for sufficient money to put the hospital in condition necessary to meet the present exigencies.

CALIFORNIA RELIEF FUND.

The committee, the complete list of which we printed last week, representing the medical profession of San Francisco, the county and state societies, Thomas W. Huntington, chairman, and Emmet Rixford, treasurer, will not only attend to the receipt and proper distribution of funds, but will gladly receive books and instruments as well. Considerably more than half the physicians of San Francisco lost their medical libraries and all of their instruments and office equipment. The necessity of providing essential instruments as soon as possible will be apparent, and the secretary of the state society, too, has asked all who may be able to contribute from their stock of instruments, to send what they can spare to the relief committee. Shipments should be made to Dr. Emmet Rixford, Lane Hospital, corner of Webster and Clay Streets, San Francisco. The more generally used reference books will also be very welcome contributions. As soon as possible the library of the county society is to be re-established and the donations of journals and medical books of all sorts will be gladly received.

Pennsylvania.

The following amounts have been contributed by the physicians of Pennsylvania:

Philadelphia County Medical Society	$ 200.00
Contributions by individual members in addition to the above	1,136.00

Adams, Charles T.	$ 2.00	Allis, Oscar H.	$ 5.00
Allen, Francis O.	15.00	Anders, James M.	20.00
Anonymous	1.00	Longaker, Daniel	5.00
Anonymous	1.00	Lutz, H. L.	2.00
Babcock, W. Wayne	3.00	McCracken, G. Y.	5.00
Barnes, Charles S.	1.00	Makuen, G. Hudson	5.00
Bland, B. B.	5.00	Martin, Collier F.	10.00
Bliss Arthur A.	25.00	Mills, Charles K.	25.00
Bold, Valentine	5.00	Mills, H. B.	5.00
Bournonville, A. C.	25.00	Moore, E. J.	5.00
Bradley, William N.	5.00	Moorehead, W. W.	5.00
Brady, Franklin	25.00	Morrison, William H.	5.00
Brubaker, Robert A.	5.00	Moss, William	5.00
Buckby, Nelson	5.00	Muller, Andrew B.	10.00
Buchanan, S. A.	3.00	Newmayer, S. W.	2.00
Cash	2.00	Pennock, Edward	5.00
Cameron, J. Lawson	25.00	Penrose, Charles B.	100.00
Cameron, Lizzie Van Dusen	50.00	Picard, Henry L.	2.00
Chapin, John B.	5.00	Ravenel, M. P.	5.00
Cleeman, Richard A.	10.00	Rehfuss, E. G.	10.00
Cleveland, T. M.	5.00	Risley, Samuel D.	25.00
Cryer, M. H.	5.00	Roberts, John B.	20.00
Currie, T. R.	5.00	Schamberg, Jay F.	10.00
Deaver, John B.	50.00	Schneideman, Theodore B.	5.00
Dercum, F. X.	20.00	Scott, J. Alison	5.00
DeYoung, A. H.	5.00	Scott, S. H.	2.00
Dick, John W.	10.00	Scull, William B.	10.00
Downs, Thomas A.	5.00	Seltzer, Charles M.	5.00
Eaton, Albert M.	10.00	Service, Charles A.	10.00
Embrey, Frank	5.00	Shea, W. K.	5.00
Eshner, A. A.	5.00	Sinclair, John F.	5.00
Farley, Joseph	5.00	Seiss, Ralph W.	20.00
Farr, C. B.	2.00	Slocum, H. A.	5.00
Fenton, Thomas H.	20.00	Solis-Cohen, J.	25.00
Fox, Charles W.	25.00	Solis-Cohen, M.	5.00
Fox, Herbert	10.00	Solis-Cohen, S.	10.00
Freeman, Walter J.	25.00	Somers, Lewis S.	5.00
Friebis, George	5.00	Spiller, William G.	10.00
Gibbs, Joseph H.	10.00	Stalberg, Samuel	2.00
Given, Ellis E. W.	5.00	Stokes, Martha E. (through Dr. J. H. Musser)	25.00
Godfrey, H. G.	5.00	Strobel, John	5.00
Haig, Charles R., Jr.	5.00	Taylor, Charles F.	10.00
Hamilton, William T.	2.00	Thomas, W. Hersey	5.00
Hare, H. A.	20.00	Turnbull, Charles S.	5.00
Randenbush, J. S.	10.00	Turner, J. B.	10.00
Herchelroth, J. C.	10.00	Tyson, James	5.00
Hirsh, A. B.	10.00	Wadsworth, W. S.	5.00
Hollingsworth, I. W.	5.00	Walsh, Joseph	3.00
Holmes, E. B.	5.00	Wehner, W.	5.00
Johnson, W. N.	5.00	Welch, William M.	5.00
Karpeles, Dr.	5.00	Wells, P. Farley	5.00
Keeler, J. Clarence	5.00	Wentz, B. F.	2.00
Keller, A. P.	5.00	Wilson, J. C.	20.00
Kercher, D. E.	5.00	Willson, W. R.	5.00
Krug, J. A.	2.00	Wood, George B.	10.00
Knowles, G. A.	5.00	Wood, George B.	2.00
Klepp, E. L.	10.00	Zimmerman, W. M.	25.00

Center County Medical Society, $35.00:

Allison, J. R. G.	2.00	Harris, Geo. F.	5.00
Braucht, H. S.	2.00	Hayes & Dale	10.00
Christ, T. S.	1.00	Huff, S. M.	2.00
Dale, J. Y.	10.00	Robinson, John I.	1.00
Frank, George F.	2.00		

Columbia County Medical Society, $38.00:

Altmiller, C. F.	5.00	McCrea, A. B.	1.00
Bowman, J. H.	1.00	Miller, R. E.	1.00
Brown, J. J.	2.00	Montgomery, J. B.	2.00
Bruner, J. W.	5.00	Reagon, G. L.	2.00
Davis, E. L.	1.00	Pfahlin, J. F.	1.00
Davis, R. O.	1.00	Redeker, F. W.	2.00
Follmer, J. B.	1.00	Rhoades, J.	1.00
Gardner, B. F.	5.00	Sharpless, B. F.	1.00
Hensyl, W. C.	1.00	Shuman, A.	1.00
John, J. S.	1.00	Stick, S. T.	1.00
Kline, L. B.	1.00	Vastine, J. M.	1.00

Fayette County Medical Society, $30.50:

Batton, J. A.	2.00	Larkin, P. A.	2.00
Edie, Elliott	1.00	McClenatan, J. C.	10.00
Evans, G. O.	1.50	Smith, E. H.	5.00
Gordon, J. W.	2.00	Sturgeon, J. D.	2.00
Gribble, R. T.	5.00		

Clinton County Medical Society	55.00
Dauphin County Medical Society	50.00
Ellenberger, J. W., Harrisburg	10.00
Franklin County Medical Society	10.00
Lancaster City and County Medical Society	100.00
Lehigh County Medical Society	25.00
McKean County Medical Society	25.00
Mifflin County Medical Society	10.00
Northern Medical Association	45.00
Obstetrical Society, Philadelphia	100.00
Susquehanna County Medical Society	12.00
Thompson, Benjamin, Landenberg	5.00
Vinton, C. H., Wernersville, Pa.	5.00
Warren County Medical Society	25.00

The following additional contributions have been received up to 9 o'clock, Wednesday morning, May 23:

INDIVIDUAL CONTRIBUTIONS.

Baker, V. A., Adrian, Mich.	$ 1.00
Brundage, M., Shelby, Idaho	3.00
Chance, H. C., Cumberland Gap, Tenn.	2.00
Einhorn, Max, New York City	50.00
Fonde, G. H., Mobile, Ala.	5.00
Fowler, W. W., Ballinger, Texas	1.00

Goddard and Graham, Boyce, Texas	$ 2.00
Graigheads, William, Boulder, Colo	1.00
Hardy, J. J., Sutter, Ind. Ter	2.50
Higgins, J. E., North Loup, Neb	1.00
Leo-Wolf, Carl G., Niagara Falls, N. Y	5.00
Lewis, James N., Ashaway, R. I	5.00
Peck, Charles G., Covington, Ky	5.00
Physician, Saranac Lake, N. Y.	15.00
Physicians of Memphis, Tenn	123.60
Pitta, J. C., New Bedford, Mass	5.00
Rosenkrans, J. H., Hoboken, N. J	5.00
Schill, F., Jr., Johnstown, Pa	2.50
Sutton, M. R., Clayton, Mich	1.00
Town, L. S., Geneva, Mich	1.00
Tucker, W. Q., Crow Agency, Mont.	1.00

SOCIETY CONTRIBUTIONS.

Adams County (Miss.) Medical Society	25.10
Allen County (Kan.) Medical Society	8.00
Carroll County (Ga.) Medical Society	5.00
Chemung County (N. Y.) Medical Society	50.00
Ellis County (Texas) Medical Society	10.00
Essex South District, Lynn, Mass	5.00
Franklin District (Mass.) Medical Society	50.00
Glassboro (N. J.) Physicians' Association	5.00
Grand Forks District (N. Dak.)	100.00
Huntingdon (Pa.) Medical Society	10.00
Huntington County (Ind.) Medical Society	10.00
Oklahoma State Medical Association	100.00
Pike County (Ohio) Medical Society	25.00
Richmond (Va.) Academy of Medicine and Surgery	100.00
Western District (Ind. Ter.) Medical Society	25.00

Anderson County (Texas) Medical Society, $33.00:

Converce, E. V.	$1.00	Maan, F. B.	$1.00
Dunn, R. M.	1.00	Mackey, W. B.	1.00
Dupuy, A. G.	1.00	McLeod, R. H.	1.00
Evans, J. H.	1.00	Megaughy, J. C.	1.00
Hatchcock, A. L.	2.00	Parks, J. M.	1.00
Howard, G. R.	1.00	Parsons, E. B.	1.00
Jamison, W. G.	1.00	Paxton, J. H.	1.00
Lane, L. A.	1.00	Payner, I. P.	1.00
Link, E. W.	10.00	Petty, J. H.	1.00
Link, H. R.	5.00		

Morgan County (Ill.) Medical Society, $33.00:

Adams, A. L.	2.00	Hairgrove, J. W.	5.00
Baker, E. F.	5.00	Milligan, Josephine	5.00
Black, Carl E.	5.00	Norbury, Frank P.	5.00
Campbell, H. C.	1.00	Norris, F. A.	1.00
Cole, Charles	1.00	Reid, D. W.	2.00
Duncan, W. P.	1.00		

Platte County (Mo.) Medical Society, $7.00:

Chastain, C. H.	1.00	Naylor, A.	1.00
Coffey, G. C.	1.00	Redman, S.	2.00
Hale, J. M.	2.00		

Santa Cruz County (Ariz.) Medical Society, $25.00:

Chenoweth, W. F.	5.00	Noon, A. H.	5.00
Gustetter, A. L.	5.00	Purdy, H. W.	5.00
Nicholson, John L.	5.00		

Wabash County (Ill.) Medical Society, $13.00:

Bucholtz, —	1.00	Maxwell, J. B.	1.00
French, A. D.	1.00	McIntosh, S. T.	1.00
Juskeep, J. E.	1.00	Reed, Dr.	1.00
Kingsbury, G. C.	1.00	Schreck, J.	1.00
Lescher, L. J.	1.00	Schreck, S. W.	1.00
Manley, P. G.	1.00	Utter, Charles	1.00
Manley, R. S.	1.00		

Chicago Medical Society (additional), $47.00:

Cary, Frank	25.00	Hughes, J. O.	10.00
Chvatal, J. F.	2.00	McMartin, B. R.	10.00

Total	$ 923.70
Previously acknowledged	6,691.20
Pennsylvania fund	1,916.50
Grand total	9,531.40

GENERAL.

National Confederation of State Medical Examining Boards.—This association will hold its annual convention in Boston, June 4. The address of welcome will be delivered by Dr. Walter P. Bowers, Clinton, on behalf of the Massachusetts Board of Registration in Medicine. Members and ex-members of state medical examining boards, and physicians and educators who are interested in the cause of higher education, are invited to attend.

Railway Surgeons' Meeting.—The surgeons of the St. Joseph & Grand Island Railroad held their annual meeting in St. Joseph, Mo., May 3. Dr. George C. McKnight, Hiawatha, Kan., was elected president; Dr. Charles H. Suddarth, Smithville, Mo., vice-president, and Dr. Luther A. Todd, St. Joseph, secretary and treasurer. The next meeting will be held at Hiawatha, Kan., in November.

American Therapeutic Society.—At the seventh annual meeting of this society, held in New York City, the following officers were elected: President, Robert Reyburn, Washington, D. C.; vice-presidents, Joseph E. Janvrin, New York, Frederick H. Gerrish, Portland, Maine, Howard van Rennselaer, Albany, N. Y.; secretary, Noble P. Barnes, Washington, D. C.; treasurer, John S. McLain, Washington, D. C. The next meeting of this society will be held in Washington, May 4-7, 1907.

American Climatological Society.—At the twenty-third annual meeting of this Association, held at Atlantic City, May 12-14, the following officers were elected: President, Thomas Darlington, New York; vice-presidents, Frank Fremont Smith, Washington, D. C., and C. L. Minor, Asheville, N. C.; secretary and treasurer, Guy Hinsdale, Hot Springs, Va. Dr. E. L. Trudeau, Saranac Lake, and Dr. Leonard Weber, New York, were elected honorary members. The next meeting will be held in Washington, D. C., in May, 1907.

American Academy of Medicine.—The thirty-first annual meeting of the American Academy of Medicine will be held at the Hotel Brunswick, Boston, June 2 and 4, immediately preceding the session of the American Medical Association. The president, Dr. Donly C. Hawley, Burlington, Vt., will deliver an address on "Heredity and Environment as Causes of Delinquency and Crime." At the Monday session a symposium will be held on the subject, "How May the Medical and Teaching Professions Co-operate to Improve the Moral, Mental and Physicial Conditions of the Young?"

Pathologists and Bacteriologists Meet.—The American Association of Pathologists and Bacteriologists met in Baltimore, May 18 and 19. There were about 100 in attendance. The meeting was held at the Johns Hopkins Medical School. The next meeting will be held at Washington. The following officers were elected: President, Dr. William H. Welch, Baltimore; vice-president, Dr. Alfred S. Warthin, Ann Arbor, Mich.; secretary, Dr. Harold C. Ernst, Boston; treasurer, Dr. H. U. Williams, and council, Drs. Richard M. Pearce, Albany, N. Y.; James Ewing, New York City; Frank B. Mallory, Boston; Ludvig Hektoen, Chicago, and William T. Howard, Jr., Cleveland.

Association of Medical Officers of the Army and Navy of the Confederacy.—The ninth annual meeting of this organization was held in New Orleans, April 25-26, the president, Dr. Charles H. Todd, Owensboro, Ky., in the chair. Dr. Ernest S. Lewis, New Orleans, delivered the address of welcome, in which he alluded in eloquent terms to the work of the Confederate surgeons in saving lives on the field of battle and in preserving them for service in the ranks. Dr. Charles W. P. Brock, Richmond, Va., responded on behalf of the guests. The following officers were chosen to serve during the ensuing year: President, Dr. Ernest L. Lewis, New Orleans; vice-presidents, Drs. Robert Y. Rudicil, Tryon Factory, Ga.; William F. Beard, Shelbyville, Ky.; Dr. Thomas E. Prueitt, Tennessee, and Dr. James D. Croom, Maxton, N. C.; secretary and treasurer, Dr. Deering J. Roberts, Nashville, Tenn. (re-elected).

Plague-Infected Rats in Manila.—Dr. Heiser, chief quarantine officer, reports that for the first time in over a year plague-infected rats have been found in Manila. The rodents so far found to be infected were obtained from the district of Binondo in the Chinese quarter. The bureau of health is having the infected district thoroughly cleansed and disinfected. Rat catchers have been employed for the purpose of ridding that section of its rats so far as possible, and also for the purpose of ascertaining the extent of the disease among them. No cases of human plague have occurred in that particular district for nearly two years, and that locality has never been classed among those sections of the city most likely to be infected. If the views with regard to rat plague expressed by the leading Japanese medical authorities are correct, Dr. Heiser states that there should be an outbreak of human plague in the district of Binondo in from six weeks to two months.

FOREIGN.

Directorship of Senn Laboratory in Siam.—Dr. Paul G. Woolley, formerly of the Government Laboratories, Manila, P. I., has assumed the directorship of the Siamese Government Senn Laboratory, which is located at Phrapatom.

The Virchow Statue.—The design for the memorial to Rudolf Virchow at Berlin which won the first prize represents a titan struggling with a sphinx. This portrays the struggle between Virchow, the giant of science, and the riddle of the origin of disease. The bronze group stands on a marble pedestal which bears Virchow's portrait in a bronze relief.

International Conference of Red Cross Societies.—The *British Medical Journal* announces that arrangements have been completed for the third international conference of the societies of the Red Cross at London, June 10, 1907. These conferences are held every five years. The first was held at Vienna in 1897, when 184 delegates were present, and the second at St. Petersburg in 1902, with 132 delegates.

Hospital Ships.—It is reported that an English syndicate is being formed in Austria for the purpose of building a fleet of hospital ships to cruise in the Adriatic Sea, as that climate is supposed to be unusually beneficial to invalids. Each ship will have accommodations for 180 patients. The voyages will not follow any prearranged routes, but will be directed only with regard to the most favorable climatic conditions.

Tilanus Medal Awarded to Bolks.—The Amsterdam correspondent of the *Wiener klin. Rundschau* for April 29 states that the gold Tilanus medal was given this year to Professor Bolks for his researches in anatomy. He is one of the younger set, and has been professor of anatomy at Amsterdam for a few years. His most important work has been the supplying of a morphologic basis for Sherrington's theory of physiologic segments. The medal in question was founded by the local medical society in memory of C. B. Tilanus, the eminent surgeon. It is awarded every fifth year for special achievements in surgery or the allied sciences.

Insurance Against Professional Infection with Syphilis.—The Breslau Dermatological Society has taken up this question and is seeking information as to the way in which insurance societies are treating their medical policy-holders who contract syphilis in the practice of their profession. It seems that at present the insurance societies manage to escape paying the indemnity on some technical grounds in many instances, and concerted action is necessary to enable physicians to obtain their rights and more favorable conditions. Those with any experience or knowledge in the matter are requested to confer with the secretary, Dr. M. Chotzen, Breslau XVIII, Landsbergerstrasse 1, Germany.

Medical Men as Electors for the Russian Douma.—A St. Petersburg exchange states that 32 per cent. of the electors chosen to select the members of the Douma belong to the ranks of university medical teachers and 6.2 per cent. to physicians in general. It states further that the national medical society, the Pirogow, has collected data which show that 288 medical men or women have been involved in the more recent repressional acts of the government. This includes 13 physicians killed or wounded, 155 arrested and banished, and 24 dismissed from official service. The veterinarians have also contributed 20 arrested or dismissed and 16 "feldschers" have also been arrested. Five additional physicians are mentioned as still more recently banished from their homes.

International Congress for Medical Electrology and Radiology.—The third international congress of medical electrology and radiology was to have been held at Amsterdam in 1905, but was postponed on account of the Roentgen jubilee congress at Berlin the same year. It has now been decided to hold the international gathering at Milan, Sept. 5 to 9, 1906. Among the subjects on which addresses have been promised are "Laws of Electrical Stimulation of Nerves," "Excitability of Various Muscles and Nerves," "Electricity in Treatment of Cutaneous Affections," "Treatment of Surgical Tuberculosis with High-Frequency Currents," "The Fundamental Principles of Modern Electrotherapy," "Measurement of Faradic Currents," "Stereoscopic Radiography," "Treatment of Carcinoma," "Radium as a Therapeutic Agent" and "Present Status of Phototherapy." An exhibition of electrical appliances, etc., will supplement the congress. The fee for the congress is $5.00 for regular members and $2.50 for associates. Dr. Luraschi of Milan, via S. Andrea 11, is the secretary, and Bozzolo of Turin has been appointed president.

Sixth International Congress for Criminal Anthropology.—The name of Cesare Lombroso is indissolubly connected with the science of criminal anthropology, and it was fitting that this sixth congress should be held in his home city and on the fiftieth anniversary of his entry into his professional career. The congress opened April 28 at Turin, where Lombroso has been professor of legal medicine and psychiatry since the early sixties. He was presented with albums containing autograph greetings from the profession at home and abroad, and the city of Verona gave a gold tablet. Lombroso presided, speaking in French, and Van Hamel and Magnaud were appointed honorary presidents, with Max Nordau, Tamburini, Sommer of Giessen, Sergi, Ottolenghi and others. The second day of the congress was devoted entirely to inspection of the prisons and insane asylums under Lombroso's guidance. His main address was on the relations between sexual psycopathies and criminality. A *Festschrift* has been published by Boccha of Turin, containing articles by 29 of the leading men in the science, discussing the ideas and works of Lombroso and their practical application.

Professional Secrecy in Case of a Crime.—A physician in Holland was recently fined by the authorities because he had failed to notify them in regard to a supposed crime. The circumstances were that he was called to attend to a man, a stranger to him, who had died suddenly. There was a small bullet wound in the skull and an odor of hydrocyanic acid in the room. He made out the death certificate, stating "Cause of death unknown." He was arrested for false testimony, the authorities affirming that it was his duty to have stated the suspicious circumstances attending the death. An Amsterdam letter in the *Wiener klin. Rundschau* for April 29 states that the physician allowed the time limit for appeal to a higher court to lapse, but later presented a plea and argument to the minister of justice, saying that professional secrecy is an institution in the interests of the public and not in the interests of physicians themselves. Every one at any time and without apprehension should be able to appeal for medical help, even when a crime has been committed or attempted. This would be impossible if the decree of the first court should stand, compelling physicians to serve as officers of justice.

Medical Fees in Case of Railway Accidents.—Two years ago a large number of persons were injured in an accident on one of the government-owned railroads of Belgium. Physicians were summoned from the vicinity to treat the wounded, and in many cases they had to continue their care for days or weeks. The government is, of course, pecuniarily responsible for their remuneration, and the charge presented for their services was according to the standard rate for middle-class patients. The government has refused to pay them at this rate, claiming that as the majority of the injured belonged to the working classes, remuneration should be according to the wage-earner's scale. The *Gazette Médicale Belge* comments that in future physicians summoned to the scene of an accident will be liable to be tempted to attend first to the better dressed wounded—if such a graduated scale of remuneration is sanctioned—and leave the wage-earners to the last. Physicians will not do this, the editorial adds; the claims of the most seriously wounded will always take precedence, but the lawsuit brought by the officials of the railroad companies to adjudicate the claims of the physicians does them little honor. The case has not yet been decided.

Twenty-third German Congress for Internal Medicine.—Nearly 600 physicians gathered at Munich, April 23, for this annual meeting of the leading men in internal medicine and their followers. Notwithstanding the clashing of dates with the international congress at Lisbon, a number of prominent foreigners were present, including Knud Faber of Copenhagen, Osler from Oxford, and Talma and Heilbronner of Utrecht. From the reports in our foreign exchanges we should judge that the most interesting and important feature of the congress was the evidence presented in respect to the curability by operative measures of exophthalmic goiter. Kocher of Berne has performed 3,000 operations on the thyroid gland, including 216 cases in which he operated on account of exophthalmic goiter. Of this last group 72 per cent. of the patients have been entirely cured. In the early stages, he asserted, rest, a milk and vegetable diet, the milk of thyroidectomized goats and administration of phosphates are liable to induce material improvement, but radical treatment is by ligation of the vessels and, possibly, resection. In affections due to inadequate functioning of the thyroid, the only radical treatment is by implantation of a sound thyroid gland. He presented the subject in a masterly manner, preaching the curability of exophthalmic goiter by operation and the necessity for early interference. He was invited to present the same address in London this week. The addresses and discussion of the thyroid gland and its problems was a notable symposium by 22 of the leading internists of Germany and Switzerland, Hönicke reporting that he had succeeded in inducing experimental exophthalmic goiter in dogs by feeding them with thyroid gland extracts. Most of the other papers read were on the problems of metabolism, physiologic chemistry, physiology of the heart, anatomy of the auriculo-ventricular bundle, and similar topics, only a few being devoted to treatment. The almost entire absence of communications in regard to immunity, bacteriology and pathologic anatomy is a commentary on the trend of the present moment. The *Muenchener med. Wochft.* invited the members of the congress and ladies to a gala presentation at the Opera-house of Mozart's "Cosi fan tutte", and distributed its annual burlesque number at the banquet at the close of the congress. The correspondent of the *British Medical Journal*, commenting on this congress, remarks: "The transactions of these congresses for the past 22 years reflect as perhaps no other series the remarkable evolution of clinical research. Looking over the volumes one is

impressed by the sense of responsibility shown by the leaders of the profession in Germany—men who have made their mark, and yet, year by year, faithful to their trust, they spend the three or four days in intellectual commerce with their compeers and in social fellowship with the younger workers and with the more important of the general practitioners of the country. It is impossible to overestimate the advantages of such an annual gathering. Alike to young and old, it is an inspiration; to its stimulus may be attributed not a little of the intensity and thoroughness which to-day characterize German medicine."

LONDON LETTER.

Action Against a Physician.

An action against a physician has been brought under peculiar circumstances, which illustrate the uncertainties of the law, against an Irish physician. The object was to recover $1,250 for injuries said to have been sustained by a youth in consequence of negligence. The case had been tried previously at the County Antrim assizes. On the first occasion the jury disagreed. On the second they found a verdict for the defendant. Against this decision the plaintiff appealed and a new trial was granted on the ground that there had been misdirection on the part of the judge. The plaintiff suffered from mumps which was complicated with orchitis. On April 4, 1904 (a Monday), the defendant was asked to see him. He recommended the use of a splint or failing that a cushion. He also prescribed an application consisting of equal parts of belladonna and soap liniments. The instructions were "to be applied as directed." He ordered the friends to keep the lotion sprinkled on lint and to lay it on the part, and promised to see the boy again on Thursday. The cushion was made, the liniment was applied, and on the following morning the flesh was blistered and inflamed. Notwithstanding, the liniment was still applied. On April 6 the boy was so ill that the physician was sent for, but as he was away from home another had to be called in. The latter found the boy suffering from belladonna poisoning. The defendant denied that he ordered the treatment to be continued until Thursday and said that he told the patients at once to seek advive in the locality, as he lived at a distance, if the case did not progress favorably. Medical evidence was given that the directions of the defendant were what was usual in the profession; but two of the witnesses admitted in cross-examination that it would be prudent to caution people to use care in the application of belladonna liniment. The jury brought in a verdict for the plaintiff and awarded him $325 damages. The plaintiff gave notice of appeal on the ground of misdirection.

Baron Takaki at St. Thomas' Hospital.

Baron Takaki, formerly Director General of the Medical Department of the Imperial Japanese Navy, has delivered a series of three lectures on "The Preservation of Health Among the Personnel of the Japanese Navy and Army." Mr. Wainwright, the treasurer of the hospital, who presided, said they were all proud of Baron Takaki, because he came as a student to St. Thomas' Hospital in 1874 and greatly distinguished himself there, winning all the prizes he possibly could, including the Cheselden medal for surgery and the treasurer's gold medal. Baron Takaki's lectures covered similar ground to those which he recently delivered in America. He was accorded a most enthusiastic reception by a large audience, consisting of the staff of physicians and students of the hospital. He deprecated the fact that so many Japanese students went to Germany to complete their education and expressed a preference for the English schools, and promised that he would use his influence in favor of the latter. Incidentlly, he mentioned that he was made director general of the medical department of the navy at the age of 37, while in this country he believed that men were not promoted to responsible positions until they were bald or gray, a statement which was received with much laughter.

The Open-Air League.

Another association, "The Open-Air League," has been added to those which are engaged in the crusade against consumption. It has received the support of several eminent physicians and persons of high social position. Its object is to enlist a vast army, who by house-to-house visitation and by the advocacy of the open window, will reach the poor in a manner never before practiced in England. It is the intention of the league to establish on inexpensive lines sanatoria for the early treatment of consumptive poor, and it is hoped that working men and women will join the league as associate members at a subscription of 60 cents per annum, in return for which members of their families will receive concessions in the cost of sanatorium treatment. The league proposes to educate the public regarding the advantages of the open window in the prevention and cure not only of consumption, but of many other diseases, for which purpose lectures, pamphlets and skilled house-to-house visitation will be employed. Provision will be made for the after-care of cured patients by the establishment of industrial farm-sanatorium colonies. A register will be kept of patients who have successfully undergone the open-air treatment and who are in search of suitable outdoor occupation and also a register of persons willing to engage workers of this class. Open-air methods will also be advocated for schools and public buildings and pupils in training colleges for teachers will be instructed in the advantages of the open window in the school room.

Polluted Water of the East End of London.

FROM AN OCCASIONAL CORRESPONDENT.

American cities have long held an unenviable reputation with regard to the quality of their water supply. Of course, in almost every instance, so far as quality has been concerned, there has been no cause for complaint. Some of the large centers of population in the United States have been actually stigmatized and have become almost a by-word on account of the bad quality of their drinking water. Typhoid fever has been rife and has been traced directly, in the majority of instances, to a polluted water supply. Fortunately, of late a great change has come over the situation in this respect. Public sentiment has been profoundly stirred and municipalities everywhere have been exerting themselves in the effort to procure as pure a water supply as possible. The results of this enlightened policy have already been plainly apparent. In certain cities and localities in which formerly typhoid fever was somewhat of a scourge the disease has wholly disappeared or has only manifested itself in the form of a few sporadic cases, and it is more than likely ere many years have elapsed that, instead of being behindhand in questions relating to water supply, the cities of America will lead the world. Their advantages, as a rule, are obvious, and when all opportunities are seized their water supplies should be second to no cities of the world. For a considerable period Great Britain has been in the van in regard to all sanitary matters. She was first in the field and her municipal authorities were pioneers in this branch of preventive medicine. In fact, public health has been the strongest feature of British municipal government. Of recent years, however, signs have been evident that the cities and towns of the United Kingdom have been losing, to some extent, their exalted position as models of sanitation among the countries of the earth. The German municipalities, in particular, have taken a "leaf from the book" of British sanitarians and now excel their masters.

Especially were British cities renowned for pure water supplies. Frequently the quantity was insufficient, at any rate insufficient as measured by generous American standards, but the quality was considered above reproach. London has often had cause to complain of a scant supply of water, but until recently no serious reflections have been cast on its purity; that is to say, it was believed to contain few, if any, disease-bearing germs. Within the past few months there has been a rude awakening from this contented state of mind. Indeed, water experts have for some time recognized the fact that water consumers in certain districts of London are in a situation of the gravest danger, and with a view of obviating this danger the London water board had brought in a bill to be presented to parliament for the purification of the water supply of the east end of London. For some unknown cause this bill has been suddenly dropped, and in consequence a feeling almost of consternation has been produced among water experts of the British metropolis.

Sir Alexander Binnie, who was formerly chief engineer to the London County Council, stated at a public dinner a short time ago that a time would come, if the present state of things continued, "when there will arise among the teeming millions of London an epidemic which will startle the world." The same authority, in the course of an interview, said: "The condition of things in the east end of London is in the highest degree perilous, and one morning the inhabitants of that section may wake up to find themselves plunged in as serious an epidemic as that which visited Hamburg a few years ago owing to the consumption of the polluted waters of the Scheldt. This part of London, comprising about one-third of the entire population of the metropolis, draws its drinking water from the mains of the old East London water company; the water is drawn from the River Lea."

The River Lea is terribly polluted, about 2,000,000 gallons

of crude sewage per diem being discharged into the river at no great distance whence the water is extracted, the supplies taken amounting to 32,000,000 gallons a day.

There is no doubt that the water supply of the east end of London is at present a menace to the whole community. The remedy suggested is that a supplemental supply should be obtained from the Welsh lakes, a distance of more than 150 miles. The supply of London is notoriously inadequate, and, despite the fact that all water before being used is passed through sand filters, it would seem to have been proved to be dangerous to health as well. It goes without saying that no expenditure should stand in the way of providing London with a pure water supply. In the past America has learned most of her lessons in sanitation and in public health from Great Britain; in the future it is more than probable that the positions will be reversed.

Pharmacology

Subsidized Medical Journals.

"CANNED EDITORIALS."

Three or four weeks ago the Antikamnia Chemical Company sent a letter to some of the medical journals in which the American Medical Association, THE JOURNAL of the American Medical Association, *Collier's Weekly* and the *Ladies' Home Journal* were discussed in very harsh and uncomplimentary terms, as might be expected, considering the source of the letter.

Now there was nothing to indicate that the letter was sent to any other journal than the one receiving it, and consequently some of our editorial friends were led astray. One of these was the editor of the *Southern Practitioner*. In the May number that journal has one editorial; but it is a long one, much longer than the editorials usually found in that journal. It bears the caption, "As to Proprietary Medicines," and is introduced with this sentence:

"The bitter and selfish fight made by THE JOURNAL of the American Medical Association, some of its satellites, and a few lay papers, on pharmaceutical preparations, has degenerated to a point where misrepresentation and positive mendacity have become their chief stock in trade."

As these were the identical words that formed the first sentence of the Antikamnia letter, we compared the two, and lo, the editorial was the letter *in toto*, practically. To be sure, here and there a word or phrase was modified and some comments added at the end, but otherwise the letter and the editorial are the same. For instance, the letter said:

"Knowing that we had little to fear from anything truthfully said of Antikamnia or any of the coal-tar preparations"; but the editorial had it:

"Knowing and believing that right in the end would prevail." This is better, and makes it easy to drop a give-away word.

Farther down the editorial it reads: "Yet *Collier's*, assisted by THE JOURNAL of the American Medical Association", whereas the letter had it: "Yet *Collier's*, assisted by the American Medical Association." Evidently the editor of the *Southern Practitioner* wanted to hit THE JOURNAL a rap, rather than the American Medical Association, which was not kind on his part. "Millions on millions of pounds of the coal-tar preparations" is the way the letter put it, but the editorial was not so reckless in statement, as it said "numbers of pounds."

The concluding paragraph of the letter was not incorporated in the editorial. It is as follows:

"We write you at length to make plain to you just what is being done to injure coal-tar preparations and to show the depths to which seemingly reputable business and professional men will sometimes descend to accomplish a purpose beneficial to themselves.

"If you can see your way clear to assist in counteracting the injustice being done you will greatly oblige."

It will be noticed that the closing sentence is not a command, but a request "to assist" in "counteracting the injustice being done."

The editor adds some original remarks of his own, which he introduces with:

"We have used freely antikamnia in our remarks," whereas the word "antikamnia" appeared only once in the editorial. The writer forgot that, in transposing the letter into the editorial, "antikamnia" had fallen by the wayside once or twice. The last part of the editorial—the really truly original part of it—is devoted to praising Fellows' syrup of hypophosphite, Robinson's hypophosphites, tongaline, bromidia, iodia, papine, echthol, Gray's glycerin tonic, Hayden's viburnum compound, Wayne's elixir, antiphlogistine, listerine, glyco-heroin, glycothymoline, cystogen, etc., and, of course, abusing the editor of THE JOURNAL of the American Medical Association, which nowadays is a very common pastime with some medical editors.

Evidently it is intended that the Antikamnia letter shall be well circulated among the profession of the country. The *Southern Practitioner* for May was no sooner off the press than reprints of its "editorial" were scattered broadcast. The reprint is entitled, "As to Proprietary Medicines, by Deering J. Roberts, M.D., Reprint of leading editorial in the *Southern Practitioner*, Vol. XXXIII, No. 5, May, 1906." "Leading editorial" is good. Detail men of certain nostrum houses are distributing this reprint to physicians, in connection with their samples.

"To what depths will we mortals fall to win our point!"

THE AMERICAN MEDICAL COMPEND ALSO.

But while the *Southern Practitioner* is the worst sinner—up to present writing, others to be heard from—in that it published the complete letter minus the closing paragraphs, the *American Medical Compend* of Toledo, Ohio, is not far behind. This journal obeys the injunction "to assist" by transferring the greater portion of the antikamnia letter, word for word, without credit or quotation marks, into its editorial pages as an original editorial. But it does introduce the editorial with three or four actually original sentences:

"Apparently a selfish fight is being made by some," says the editor, "against the use of coal-tar preparations, and they carry it so far as to condemn what we know from personal experience" (the editor is given as W. W. Grube, A.M., M.D., professor of physiology and clinical medicine, Toledo Medical College; it is to be hoped he is not the one who wrote these introductory sentences, or that he is not endorsing antikamnia), "to be good and valuable remedies. There must be no misrepresentation as the profession will not tolerate it." The last sentence should be read twice, keeping in mind that all that follows in the long editorial is—the antikamnia letter. There is no hint that it is not an original editorial of the editor of the *American Medical Compend*.

THIS TIME IT IS AN ANONYMOUS LETTER.

The *Atlanta Journal-Record of Medicine* takes it up differently. The antikamnia letter in this instance is put into the editorial department, double leaded, but under the caption "A Letter." It is, of course, not signed; the readers are kept in blissful ignorance of the author; they might naturally conclude that some disgruntled subscriber had gone back on his fellow-practitioners and had turned to the defense of the "patent-medicine" men. One short paragraph in the body of the letter is omitted, and the concluding paragraph in which the journal is asked "to assist" is kept from the reader.

By the way, this number of the *Atlanta Journal-Record of Medicine* devotes sixteen editorial pages to the defense of nostrums. Besides the antikamnia letter it quotes nearly all of the pamphlet sent to newspapers entitled "Legislative Schemes of the American Medical Association"; also another article

circulated by the Proprietary Association of America, "The Mendacious Campaign Against Domestic and Proprietary Remedies," which is an attack on *Collier's* "Great American Fraud" articles.

IF NEWSPAPERS, WHY NOT MEDICAL JOURNALS?

The "patent-medicine" men's association has a very effective press committee, which prepares and furnishes to such newspapers as are under the control of that association, material to be used to influence public opinion in favor of "patent medicines." As this material is usually attractively presented and readable, it is a great temptation to editors to print it as received rather than to transpose the arguments into their own words. This is the reason that the same editorials defending "patent-medicine" appear in newspapers all over the country. This press committee, therefore, is a great labor-saving device for the weak newspapers that are willing to be used by their supporters.

If newspapers can do this—can use as original the material furnished them—why can not medical journals? They can. They do. But as there is no real central press committee to act for the "ethical" nostrum manufacturer, some of them are doing it for themselves, as the Antikamnia Company, with its letter to the medical journals. As a member of the Proprietary Association of America that company learned how to do it.

And the medical journals are even more willing to aid the "ethical" nostrum men than are the newspapers to aid the "patent-medicine" men. As the former have no press committee, certain medical journals are working up their own material, and then sending it around for others to copy. For instance, we have before us "advance sheets of editorial pages of *Medical Sentinel*, Portland, Ore., for May, 1906, Henry Waldo Coe, M.D., Editor." It contains six editorials for the faithful to copy: "The American Medical Association Gang," "A Medical Bureaucracy," "Directors Who Do Not Direct," "The Self-Effacement of Local Medical Journals," "Is the A. M. A. Ring 'Unbustable'," and "The House of Delegates of the A. M. A."

The faithful will copy.

Physicians and Proprietary Remedies.

It occurs to me it might be worth while to allow a layman, "the wisest Frenchman that ever lived," to express himself in the discussion now going on in your columns and those of other journals regarding "patent" and proprietary medicine, the credulity of many physicians and the gullibility of the public, etc. Montaigne so clearly apprehended the truth concerning so many of these matters we are now discussing that it seems somewhat discouraging that the intelligence and wisdom of the profession and public should have increased so little apparently in the last 325 years.

To illustrate, the excellent paper by Dr. Henry P. Loomis, published in your issue of December 9, entitled "Physicians and Proprietary Medicines," really points to no fallacy, sophistry or abuse to which Montaigne was not alive. The pity of it is that Dr. Loomis' words should be needed to-day; that they are needed we must sadly confess.

Who has ever—physician or layman—shown the unwisdom and folly of the shotgun prescription more clearly than Montaigne does in these words?

"Even the very promises of physic are incredible in themselves; for having to provide against divers and contrary accidents that often afflict us at one and the same time and that have almost a necessary relation, as the heat of the liver, and the coldness of the stomach, and the other will cool the liver; one has its commission to go directly to the kidneys, nay even to the bladder, without scattering its operations by the way, and is to retain its power and virtue through all these turns and meanders, even to the place to the service of which it is designed, by its own occult property; this will dry the brain; that will moisten the lungs. Of all this bundle of things having mixed up a potion, is it not a kind of madness to imagine or to hope that these differing virtues should separate themselves from one another in this mixture and confusion, to perform so many various errands? I should very much fear that they would either lose or change their tickets, and disturb one another's quarters. And who can imagine but that, in this liquid confusion, these faculties must corrupt, confound and spoil one another? And is not the danger still more, when the making up of this medicine is entrusted to the skill and fidelity of still another, to whose mercy we again abandon our lives?"

And who has ever portrayed the mental state of the sufferer from a chronic or incurable disease and at the same time shown how and why they become such easy victims to quack doctors or the claims of the patent-medicine manufacturers quite so well as does Montaigne in the following paragraph:

"'Tis the fear of death and pain, impatience of disease, and a violent and indiscreet desire of a present cure, that so blind us; 'tis pure cowardice that makes our belief so pliable and easy to be imposed on, and yet most men do not so much believe as they acquiesce and permit; for I hear them find fault and complain as well as we; but they resolve at last, 'What should I do then?' As if impatience were of itself a better remedy than patience. Is there any one of those who have suffered themselves to be persuaded into this miserable subjection, who does not equally surrender himself to all sorts of impostures? who does not give up himself to the mercy of whoever has the impudence to promise him a cure? The Babylonians carried their sick into the public square; the physician was the people; everyone who passed by being in humanity and civility obliged to inquire of their condition, gave some advice according to his own experience. We do little better; there is not so simple a woman whose chattering and drenches we do not make use of; and according to my humor, if I were to take physic, I would sooner choose to take theirs than any other, because at least, if they do no good, they will do no harm. What Homer and Plato said of the Egyptians, that they were all physicians, may be said of all nations; there is hardly a man among any of them who does not boast of some rare recipe, and who will not venture it on his neighbor, if he will let him. I was the other day in company where some of my fraternity told us of a new sort of pills made up of a hundred odd ingredients; it made us very merry, and was a singular consolation, for what rock could withstand so great a battery? And yet I hear from those who have made trial of it, that the least atom of gravel will not stir for it."

It is to be remembered that Montaigne himself sought in vain for relief from a stone in the bladder.

THEODORE DILLER.

A Death from Trional.

Dr. J. Reynolds Brown, Tacoma, Wash., sends us a clipping from the *Daily News* of that city, containing an account of the death of a young man from trional.

The clipping states:

The irresponsible prescribing of medicines by druggists and their clerks was indirectly responsible for the death of Charles F. Athol, according to Coroner Stewart and County Physician W. B. McCreery. The physicians gave this opinion after performing an autopsy on the body of the young man, and Drs. E. M. Brown and C. F. Kinnear, who assisted, concurred.

Athol, who was but 21 years old, was the son of Mr. and Mrs. Frank Athol, of 1331 South D street. Last week the young man was troubled with sleeplessness and in a drug store he asked for some sleeping-powders. The man in charge gave him a remedy known as "trional" and he took about fifteen grains. Athol was an advanced consumptive and the medicine had the effect of raising a slight fever. This alarmed his parents, who went to another drug store, told the clerk the symptoms and got some more "trional," which they administered according to the clerk's directions. Their son became rapidly worse, and, though a physician was called, he died shortly afterward.

The *Daily News*, in an editorial in the same issue, calls attention to what it designates as the "drug store habit." The editorial states that this is a habit to be deplored and has resulted in many evils as it leads to the misuse and excessive use of many dangerous drugs.

The editorial concludes:

It is easy for the man with what seems to be a slight ailment in his family to ask the druggist for a potion, and so cheap compared with the cost of visiting a physician and then the druggist, that we run the wildest of risks. Oftentimes for "two bits," or even less, a man gets from the apothecary what he has been taught by experience would cost him several times that sum if he first saw the physician and then the apothecary, for the price seems to grow in all directions with that bit of prescription paper.

But it is dangerous and probably unlawful. It is the intention of the medical law of the state to confine the practice of medicine to

graduate physicians, which is eminently correct, and the warning of the coroner, with the death of young Athol before us, is given with the emphasis merited by the seriousness of the custom.

[Trional is a proprietary name for what is now official in the U. S. P. as Sulphonethylmethanum.—ED.]

Lay Resolutions Endorsing the Nostrum Campaign.

JACKSON, MICH., May 3, 1906.

To the Editor:—In THE JOURNAL, April 21, Dr. Blair, of Lebanon, Ohio, submits a copy of a memorial to the general assembly of the Cumberland Presbyterian Church adopted at the Miami presbytery on April 4, 1906, urging action to eliminate objectionable medical advertising from their denominational papers.

For some unaccountable reason the religious press is very slow to institute reform in this direction, and to one who is observing the character of the advertising admitted to the columns of the religious papers of all denominations, these Presbyterian resolutions are remarkably vigorous and show a grasp of the situation which is somewhat unexpected. It is truly refreshing to read them. The Miami presbytery is to be congratulated.

The point of priority, however, must be conceded to the Baptists of Michigan. At the seventieth annual meeting of the Baptist convention of the state of Michigan, held at Jackson, Oct. 16-20, 1905, the following resolutions were passed and placed on record:

We are in the midst of startling and lamentable revelations of ethical corruption, revelations which show not alone the moral delinquency of a few men in high places, but which seem to be expressive of dishonesty as present in every rank of our American life.

We would register our conviction: That this is to be corrected only by a clear reaffirmation of the truth that the ultimate standard of human conduct is not personal desire or profit, or even the permissions of human laws, but the eternally righteous laws of the personal God and our Lord Jesus Christ; that every person who bears the name of Jesus Christ is under most solemn obligation to make his conduct in social and business relations correspond to his profession; that the church of Jesus Christ has the privilege and the duty of being faithful to her high mission of bringing the personal God and His righteous requirements close to the lives of men.

As a specific cause of complicity, conscious or unconscious, in business of questionable honor and honesty, we would express our regret that there are found in the pages of our denominational press advertisements of such things as "patent medicines" and get-rich-quick schemes, which border on, if they do not reach, the obscene, and are delusive and misleading to many.

We would further express the hope that our noble denominational papers would lead in the fight against corruption and graft by excluding such advertisements from their pages.

T. S. LANGFORD, M.D.

Insurance Examination Fees

The Recent Reduction in Fees.

ROCHESTER, N. Y., May 17, 1906.

It appears very proper at this time to take up the discussion of medical insurance examinations in view of the recent cut in the examination fee by the Mutual Life and the Equitable Life Insurance companies from $5 to $3, and the contemplation of the same cut by other companies.

Old-line life insurance companies, except the New York Life and a few others, until recently have been paying $5 for examinations, and have appeared to regard it as a just compensation and to appreciate the fact that it would be unjust to expect a competent physician to make a thorough examination of applicants for less than $5, inasmuch as the examination is usually made at the home of the applicant. For various reasons it is often necessary to make two trips to the applicant's home to complete the examination, and two or more urinalyses are often necessary and required, and also the usual necessary writings of explanations and letters to the home office.

The great majority of companies have realized that for all this a fee of $5 is only a proper compensation, and now, when we consider the advances in almost every branch of labor, and with living expenses very high, compared with five or ten years ago, and constantly increasing, it would be only natural to expect that if there were a change in the physician's fee for examining, it would be an increase.

Who are responsible for this unnecessary and unmerited injustice can readily be appreciated by examining Section 97, laws enacted by the New York General Assembly Session, 1906, and recommended by the Armstrong committee. Section 97, in part, is as follows:

97. *Limitation of Expenses.*—No domestic life insurance corporation shall in any year after the year nineteen hundred and six expend or become liable for or permit any person, firm or corporation to expend on its behalf or under any agreement with it (1) for commissions or first year's premiums, (2) for compensation, not paid by commission, for services in obtaining new insurance exclusive of salaries paid in good faith for agency supervision either at the home office or at branch offices, (3) for medical examinations and inspections of proposed risks, and (4) for advances to agents, an amount exceeding in the aggregate the total loadings on the premiums for the first year of insurance received in said calendar year (calculated on the basis of the American experience table of mortality with interest at the rate of three and one-half percentum per annum) and the present values of the assumed mortality gains for the first five years of insurance on the policies on which the first premium, or installment thereof, has been received during such calendar year, as ascertained by the select and ultimate method of valuation as provided in Section 84 of this chapter.

This means that the agent, the medical examiner and inspection of risk must be paid out of this limited allowance; for instance, an agent wrote an application at age 30, twenty-year endowment, according to the insurance laws recently passed, there would be $18 to be divided between agent and medical examiner, after deducting the fee for inspecting the risk and the proportionate loss on account of rejections, which would leave about $16 to be divided between the agent and the examining physician. If we deducted $5 for the examiner the agent would have $11 for writing the case.

Now the companies say that it would be quite necessary, because of this section 97, to cut the medical examiner's fee that they may be able to obtain new business. If the Armstrong committee, in drafting the insurance laws, had not mentioned medical examinations the companies could, and in all probabilities would, continue to pay their medical examiners the regular fee of $5.

The law, in its restrictions, throws out a protecting arm to the agents and allows them to receive extra compensation from the home office, when it says, in section 97: "Exclusive of salaries paid in good faith for agency supervision, either at the home office or at the branch office", under which the agent can be given $1,000 or more a year extra, but no shelter under the law is given the examining physician; there is no loophole for him; he must take his little 40 per cent. reduction and smile, if he can.

Eleven years ago the New York Life, as Dr. McCormack puts, it, the original and arch sinner against the best interests alike of their policy holders and the profession in this regard, had cut its fees and probably a majority of leading physicians in all sections of the country failed to resent the recognized indignity. Now, what shall the profession do when the New York state legislature makes it very convenient, if not necessary, for the other companies to make this unmerited and discourteous cut? Shall we let the blow pass unheeded, or stand together and demand that we be not unjustly legislated against?

JAS. H. FINNESSY.

Societies Take Action.

BUNCOMBE COUNTY (N. C.) MEDICAL SOCIETY.

At a meeting of this society, held May 7, the following committee report was adopted:

Your committee report:

1. That there has been lately a concerted attempt of most of the insurance companies to reduce the standard fee for medical examinations for policies of $3,000 and under to $3.

2. That the success of this movement, which is unfair to the profession in that it would make them bear a part of the burden brought on the companies by the dishonesty of their managers and directors, and with which the doctors had nothing to do and for which they can not be held responsible, is dependent on the willingness of doctors to agree to the new rate, as is shown by the letters the companies are sending to their examiners and their anxiety not to have the county societies pass resolutions opposed to the reduction. If the profession practically as a whole refuses to do the work for such a fee the companies are powerless, as they can not afford to put their examining work in the hands of men who, for various reasons, are not in societies and only a small percentage of whom are of high standing.

3. It seems, then, to the committee that if the members of the society, which includes a very large majority of the medical men of the county, determined as one man to refuse consent and stick to their agreement faithfully and honestly, we are bound to win in what is a perfectly fair and just contest for our rights.

4. Therefore, we would recommend that the Buncombe County Medical Society and all its members binds itself and themselves by a written agreement to make no insurance examinations for less than the usual fee of $5.00, save that when a company is willing to omit the family history and urinalysis, thus very materially lessening the work of such an examination, the members of this society will agree to make $3 the regular charge.

5. That the secretary be directed to obtain within two weeks the signatures of each and every member to this resolution and to send to each one a copy of this report showing that the interest of each will be best served by a united stand of our profession against this movement.

6. Farther, that all physicians in good standing in the county, even when not members of this society, be urged to join with us in this movement.

7. That the secretary be directed to send a copy of these resolutions to the secretary of each county society in this state, and to the state society, with the request that they be read at the next meeting, and that similar resolutions be passed by them; for unless the profession as a whole realizes that only in union is strength and stand together, it is easy to foresee the coming of the time when the companies, seeing their power in our disunion, will further reduce the fee, till as in Germany and France at present, a physician will be obliged to take fees of 50 cents and less for skilled work, which is none too largely paid at present rates.

8. That to further the fight by the profession against this movement, the secretary be directed to send a copy of these resolutions to THE JOURNAL of the American Medical Association, with the request that they be published in its columns.

CHARLES L. MINOR,
M. H. FLETCHER,
C. V. REYNOLDS,
Committee.

OKLAHOMA MEDICAL ASSOCIATION.

At the annual session of this association, held at Oklahoma City, May 7-9, 1906, the following resolution was passed:

WHEREAS, We, the members of the Oklahoma State Medical Association, in convention assembled, ever ready to promote the general welfare of the people, corporations and bodies we serve, and mindful of the duties imposed and services required of us by these people believe that it is not for the best interests of all concerned that our examination fees be reduced, but that it rather tends to lower the dignity and cause us to become more lax in our examinations and thereby render poorer service to our constituents, all of which is subversive of any good, and believing, as we do, that all good people, corporations and bodies demand the best service that we can render and should be willing to pay a just compensation for such service, and further believe that it is the practice of poor economy by any corporation, to lower examination fees and still demand the same service, and that this association should use its influence with all the people, corporations and bodies demanding our services, and endeavor to impress on them the necessity of paying what the services are really worth. Therefore be it,

Resolved, That the Oklahoma State Medical Association recommends that each constituent organization of this body take the proper steps to establish a minimum fee of $5.00 for each and every examination made; that this society condemns contract practice, and hereafter our members be forbidden to accept the same unless paid for at the regularly established rate.

JOHN RANSOM HAMILL, Guthrie, Chairman.
FLOYD E. WARTERFIELD, Holdenville.
W. E. DICKEN, Oklahoma City.

COLUMBIA (S. C.) MEDICAL SOCIETY.

At a recent meeting this society formally adopted the resolutions regarding insurance fees, passed by the South Carolina Medical Association, published in THE JOURNAL May 5, 1906, page 1386.

SACRAMENTO SOCIETY OF MEDICAL IMPROVEMENT.

SACRAMENTO, CAL., April 25, 1906.

At a regular meeting, held April 24, 1906, the following preamble and resolutions were unanimously adopted:

WHEREAS, Several of our members have been notified that the Mutual Life Insurance Company of New York has reduced the fee for the examinatoion of applicants from five ($5) to three ($3) dollars, and,

WHEREAS, These members have referred this action to our society, which, for many years, has had in force a fee bill rate for such examinations for old line companies of five ($5) dollars, and,

WHEREAS, The last-named figure for a full and complete examination, with analysis of urine, filling blanks and necessary correspondence, is but a fair compensation for the time occupied by professional men on whose honesty and capability the success of life insurance companies must mainly rest; it is therefore,

Resolved, That the members of the Sacramento Society for Medical Improvement agree to adhere to their fee bill rate and earnestly protest against the reduction made by the present officers of the Mutual Life Insurance Company of New York, as unjust, unfair, and unworthy, and they recommend all medical men in affiliation with the State Medical Society, and the American Medical Association to refuse to examine at the lowered rate for a corporation the officers of which have taken this course under the pretense of a necessary reduction of expenses, while at the same time they are allowing the president fifty thousand dollars a year for his services.

Resolved, That the dignity, honor, influence and success of the medical profession largely depend on the recognition of a proper compensation by those able to pay for services rendered and that no organization can rightfully require its medical examiners to work for a less amount than that charged private parties."

It was further moved and carried by unanimous vote of the members present:

That members of the Sacramento Society for Medical Improvement who examine in life insurance for a fee less than that of the fee bill, whether paid in individual fees or in salary, be dropped from the roll of the society.

That it is the sense of this society that the rights and privileges of consultation with members of this society be denied those whose names have been dropped from the roll for examining for less than the prescribed fee.

That any special arrangement for increase of fee to $5.00 per examination made between medical examiner and local agent shall not be accepted by this society, and the special arrangement must be made between the medical director of the company and the examiner.

E. M. WILDER, M.D., Secretary.

Medical Legislation

Department of Public Health.

At a recent meeting of the Norfolk District Medical Society the enclosed resolutions were unanimously adopted:

Resolved, That the Norfolk District Medical Society of the State of Massachusetts endorses the action taken by the American Medical Association in favor of the establishment of a Department of Public Health with representation in the Cabinet of the President of the United States.

Resolved, That a certified copy of the above resolutions be forwarded by the Secretary to the Chairman of the Committee on Legislation of the American Medical Association.

JAMES C. D. PIGEON, Secretary.

Correspondence

The Philadelphia School for Nurses.

ORANGE, N. J., May 17, 1906.

To the Editor:—In a recent *Bulletin of the Philadelphia School for Nurses* there are given several hundred names of physicians who endorse this school. A paragraph printed at the head of these names reads as follows: "In every instance one or more letters have been received giving specific permission to use the writer's name as refererce in connection with this movement."

Under Orange, N. J., the names of eleven physicians are given, my own among that number. As I have never endorsed this school I was interested to know how many of the men named had actually done so. I find two of the men named removed from Orange more than two years ago, and I understand one of them is now dead. Another is a graduate of 48 years' standing and has not engaged in practice for more than 35 years. Of the remaining eight all deny absolutely that they have endorsed the Philadelphia School for Nurses.

It does not seem that such a piece of barefaced assurance should go unchallenged, and I have no doubt that many of the names given are used without authority. LINN EMERSON.

Association News

Hotel Committees in Boston.

Dr. D. D. Scannell, secretary, writes: "The headquarters of the committee on hotels and transportation will be located in a special booth at Mechanics Building. There will be here a sufficient list of suitable accommodations for those who have deferred making arrangements until the last moment. There will be a sufficient clerical force to minimize delay so far as possible. There will also be a reasonable number of messenger boys whose duty it will be to help our visitors in locating their rooms. In addition to all this, there will be at each of the four railroad stations representatives from a subcommittee who will help in the distribution of information, and for those who desire it, help to secure accommodations by telephoning to the Mechanics Building headquarters. While it is desirable, of course, that all who can should go to the Mechanics Building office, still we can help also from these railroad stations: For those coming into Boston on the Boston and Albany railroad, or the Providence division of the New York, New Haven and Hartford, and whose hotel reservations are in the Brunswick, Buckminster, Copley Square, Lenox, Nottingham, Oxford, Somerset, Abbottsford, Vendome, Victoria or Westminster, we

would recommend getting off at the Huntington Avenue or Back Bay stations, respectively. Most of the lodging-houses will be easily reached from these two depots. To those coming in on the same divisions, but being quartered at the Adams House, American House, Bellevue, Cecil, Essex, Lexington, Parker's, Young's, Touraine, Quincy, Crawford House and the Revere House, it would be best to come into the South Terminal. At each point any additional information can be secured. The majority of the lodging-houses are within from ten to fifteen minutes' walk from Mechanics Building. For any overflow that may occur beyond our reasonable expectation, we will have ample accommodations twenty to thirty minutes' from Boston.

Entertainment for Women Physicians.

The medical women of Boston and vicinity extend a cordial invitation to all women physicians attending the session of the American Medical Association to a garden party on the grounds of the New England Hospital for Women and Children, Dimack Street, Roxbury, on Wednesday, June 6, from 4 to 6. A notice as to special conveyance will be posted in the women's rest room.

A Trip to the Thousand Islands.

A small party is being formed to go to Boston by way of Toronto, taking the boat there for the St. Lawrence River trip through the Thousand Islands and the rapids to Montreal, thence to Boston. The party starts Friday, June 1, at 3 p. m., and reaches Boston, Monday, June 4, at 7:30 a. m. Those wishing reservations made for this trip are referred to Dr. Frank E. Brawley, 72 Madison Street, Chicago.

Visit to New Haven.

NEW HAVEN, May 9, 1906.

To the Editor:—At a meeting of the New Haven Medical Association, held May 2, it was resolved that the rooms of the New Haven Medical Association, 962 Chapel Street, be thrown open to members of the American Medical Association who desire to visit New Haven after the Boston session of the Association. W. E. HARTSHORN, Secretary.

Correction in Rates.

By a typographical error, May 12, page 1464, we announced a rate of $20 from Chicago to Baltimore via the Baltimore & Ohio Railway to Baltimore, thence to Boston via the Merchants and Miners' Steamers. This price is $29.

Marriages

SAMUEL NICHOLAS, M.D., to Miss Esther Trallis, in New York City, April 24.

WALDO BRIGGS, M.D., to Miss Anna Blow Shipley, both of St. Louis, Mo., May 14.

JOSEPH J. BANSBACH, M.D., to Miss Bessie Neese, both of St. Joseph, Mo., May 5.

CHARLES REA, M.D., York, Pa., to Miss Bessie W. Bailey of Bloomsburg, Pa., May 9.

L. DOYTE HOLLIDAY, M.D., to Miss Mabel Lucas, both of Fairmount, Ind., May 10.

JOSEPH SAGER, M.D., to Mrs. Gabie Williams, both of Celina, Ohio, in Cincinnati, May 12.

JAMES L. PARKES, M.D., Madden, Miss., to Miss Alice Sanders, at Harperville, Miss., May 13.

EDGAR WINFIELD GARDNER, M.D., Literberry, Ill., to Miss Mary Machin of Keokuk, Iowa, May 9.

LOUIS NEILL TATE, M.D., Carthage, Ill., to Miss Gertrude Almeda Andrews of St. Elmo, Ill., May 16.

JOHN ROBERT LIONBERGER, M.D., Boonville, Mo., to Miss Rebekah Kinnard of Franklin, Tenn., May 16.

LIEUT. JAY RALPH SHOOK, M.D., assistant surgeon, United States Army, to Miss Helen Slade of Des Moines, Iowa, May 23.

ROBERT J. MCNEILL, M.D., Germantown, Philadelphia, to Miss Jane E. Mason of Philadelphia, May 15.

HENRY WIREMAN COOK, M.D., Minneapolis, Minn., to Miss Ellen McCall Davenport of Richmond, Va., May 15.

FRANCIS ASHLEY FAUGHT, M.D., Philadelphia, to Miss Anna Mabel Brown of North Asbury Park, N. J., May 18.

LIEUTENANT COMMANDER LEWIS MORRIS, M.D., surgeon, United States Navy, to Miss Mary Gibbs Murphy, in New York City, May 12.

Deaths

Thomas Sargent Latimer, M.D. University of Maryland, School of Medicine, Baltimore, 1861; a member of the American Medical Association; president of the Medical and Chirurgical Faculty of Maryland in 1884 and 1885; professor of principles and practice of medicine in the College of Physicians and Surgeons, Baltimore; assistant surgeon and later surgeon in the Confederate service, and filling important position in the army of Northern Virginia; for two years resident physician to the University Hospital, Baltimore; one of the founders of the College of Physicians and Surgeons; president of the lunacy commission of Maryland; editor of two medical journals, died at his home in Baltimore, May 16, from nephritis, after an illness of six months, aged 67.

William H. Focht, M.D. College of Physicians and Surgeons, Baltimore, 1883; a member of the American Medical Association, the Ohio State Medical Society, and once president of the Seneca County Medical Society; a member of the Northwestern Ohio Medical Association and American Academy of Medicine; one of the board of regents of Heidelberg University, and at one time president of the alumni association of that institution; some-time a member of the board of education and of the city council of Tiffin, Ohio, died at his home, May 12, from suppurative meningitis, following an abscess of the ear, after an illness of several months, aged 48.

William M. E. Mellen, M.D. University of Michigan, Department of Medicine and Surgery, Ann Arbor, 1876; delegate of the Tenth International Medical Congress, Berlin, 1890; president of the Hampton District Medical Society, 1905; mayor of Chicopee in 1904; town physician in 1883 and 1884; for several years a member of the board of health, and its chairman in 1899; in 1891 a member of the board of aldermen, and the following year chairman of that board; a delegate to the national democratic convention in Chicago, 1892, died at his home in Chicopee, from cerebral hemorrhage, May 14, after a short illness, aged 57.

Theodore B. Lashells, M.D. National Medical College, Medical Department of Columbian University, Washington, D. C., 1863; of Meadville, Pa.; surgeon of the Twelfth Pennsylvania Cavalry and One Hundred and Seventy-fourth Pennsylvania Infantry during the Civil War; for many years a member of the State Board of Medical Examiners and the State Board of Charities; chief surgeon of the Bessemer Railroad, and for 35 years local surgeon of the Erie Railroad, died in the Spencer Hospital, Meadville, May 9, three months after an accidental fall in which he sustained a fracture of the hip, aged 67.

Lyman Skeen, Jr., M.D. University of Virginia, Medical Department, Charlottesville, 1895; a member of the American Medical Association, who, after graduation became first assistant in the biologic department of the university and for several years served as instructor in that institution, died at his home in Ogden, Utah, May 14, from tubercular meningitis, after an illness of more than a year, aged 34.

John M. D. France, M.D. University of Georgetown (D. C.) Medical Department, 1865; a pioneer practitioner of St. Joseph, Mo.; organizer of the old St. Joseph Medical College, afterward consolidated with Ensworth Medical College; some-time city and county physician of St. Joseph, who had been suffering from anemia for a year, died suddenly at his home, May 9, from cardiac dilatation, aged 64.

George Leolkes, M.D. Hahnemann Medical College, Philadelphia, 1868; of Belleville, Ill.; a member of the St. Clair County Medical Society, and for several terms a member of the Belleville board of education and library board, died from heart disease at Mullanphy Hospital, St. Louis, May 15, aged 60.

D. Franklin Powell, M.D. Louisville Medical College, 1873, of St. Paul, Minn.; for seven years mayor of La Crosse, Wis.; noted as an Indian fighter and plainsman; a veteran of the Spanish-American War, died suddenly from heart disease, May 8, while on a train eastbound from Los Angeles.

Carl V. Vischer, M.D. Hahnemann Medical College, Philadelphia, 1887, of Philadelphia; one of the organizers of St. Luke's Hospital, Philadelphia, and consulting surgeon at McKinley Memorial Hospital, Trenton, N. J., died in Bellefonte, Pa., May 13, from diabetes, after an illness of six months, aged 37.

Newell L. Johnson, M.D. Department of Medicine of the University of Pennsylvania, 1891, of Williamsport, Pa., a member of the American Medical Association, died in the hospital of the University of Pennsylvania, Philadelphia, from cancer of the colon, May 16, aged 44.

James Wardlaw Pelham, M.D. Jefferson Medical College, Philadelphia, 1888; house surgeon of Blockley Hospital for three years; of Asheville, N. C., died in the Biltmore Hospital, Biltmore, N. C., May 11, from nephritis, after an illness of several years, aged 45.

Thomas W. Evans, M.D. Detroit Medical College, 1871; hospital steward in the Civil War; for 45 years a prominent practitioner of Ross County, Ohio, died at his home in Richmonddale, May 11, from disease of the stomach, after a long illness, aged 66.

Valentine Vermilye, M.D. College of Physicians and Surgeons in the City of New York, 1844, one of the oldest citizens of Sandwich, Ill., died at the home of his daughter in that place, May 7, after a prolonged period of invalidism.

Edwin Forrest Rush, M.D. Bennett College of Eclectic Medicine and Surgery, Chicago, 1878, a great-great grandson of Benjamin Rush, died at his home in Chicago, April 21, after a prolonged illness, from chronic nephritis, aged 54.

John B. Evans, M.D. University of Louisville, Medical Department, 1860, a surgeon in the Confederate service during the Civil War, died at his home in Riley, Ky., from heart disease, after a prolonged illness, May 7, aged 69.

Leroy D. McWayne, M.D. Medical Department of the University of Tennessee, Nashville, 1880, a veteran of the Civil War, died at his home in Hoosick Falls, N. Y., May 10, from chronic nephritis, after a long illness, aged 69.

B. E. Bushaw, M.D. (County License, Indiana, 1897), a member of the American Medical Association, and a prominent practitioner of Marengo, Ind., died suddenly from heart disease, at his home in that place, May 1, aged 65.

William Ferguson Cartmill, M.D., a practitioner in Missouri from 1847 to 1849, and in California for several years, died at his home in Tulare, Cal., March 26, from heart disease, after an illness of 15 days, aged 84.

William Alexander McDonald, M.D. Harvard University Medical School, Boston, 1871, of Lynn, Mass., a member of the Massachusetts Medical Society, died in Lynn, May 11, from cerebral hemorrhage, aged 62.

William J. Collins, M.D. Illinois Medical College, Chicago, 1904; of Geneva, Ind.; a member of the Adams County Medical Society, was struck by a train at Geneva and instantly killed Dec. 3, 1905, aged 39.

George Ralph Breckon, M.D., Toronto University Medical Faculty; a member of the American Medical Association and of the Michigan State Medical Society, died recently at his home in Caledonia, Mich.

Eliza L. Pierce Fountain, M.D. New York Medical College and Hospital for Women, New York City, 1867, died at her home in New York City, May 11, after an illness of five months, aged 69.

Marshall D. Murray, M.D. Medical Department of the University of the South, Sewanee, Tenn., 1895, of Pinewood, S. C., died in St. John's Hospital, Baltimore, May 9, after a long illness, aged 38.

Andrew M. Crawford, M.D. Rush Medical College, Chicago, 1877, a retired practitioner of Denver, died from the effects of an overdose of acetanilid, in his apartments in Denver, May 2.

O. N. Heise, M.D. Medical College of Ohio, Cincinnati, 1886, of Cincinnati, a member of the American Medical Association, died at the home of his sister in Indianapolis, May 15.

James E. Gibson, M.D. St. Louis Medical College, 1860, died at his home in Bissell, St. Louis County, Mo., May 12, from appendicitis, after an illness of one week, aged 70.

Thomas P. Hudson, M.D. Eclectic Medical Institute, Cincinnati, 1859, formerly of Streator, Ill., died in Maize, Kan., May 3, after an illness of five years, aged about 60.

Walter A. Garton, M.D. Temple College, Department of Medicine, Philadelphia, 1899, died in that city from a self-inflicted gunshot wound, May 8, aged 29.

James M. Young, M.D. University of Louisville, Medical Department, 1860, a veteran of the Civil War, died recently at his home in Bloomfield, Ky., aged 68.

Solomon C. Warren, M.D. Hahnemann Medical College, Philadelphia, 1855, died at his home in Syracuse, N. Y., May 7, from cerebral hemorrhage, aged 73.

John W. Tuck, M.D. Louisville Medical College, a Confederate veteran, died at his home in Virgiliana, Va., May 7, after a long illness, from heart disease.

John S. Failing, M.D. University of Buffalo, Medical Department, 1868, formerly of Grand Rapids, Mich., died recently at his home in Los Angeles, Cal.

James E. Kelly, M.D. Albany (N. Y.) Medical College, 1901, died at his home in Saratoga Springs, May 14, after an illness of five months, aged 42.

Milburn McCarty, M.D. Medical Department of the University of Cincinnati, 1866, died at his home in Granger, Texas, May 7, aged 78.

Frances Linton Sharpless, M.D. Woman's Medical College of Philadelphia, died at her home in West Chester, Pa., May 15, aged 50.

B. L. Davis, M.D. New York Homeopathic Medical College and Hospital, 1864, died at his home in Bellevue, Pa., May 15, aged 66.

Judah Isaacs, M.D. Eclectic College of Pennsylvania, Philadelphia, 1861, died at his home in Philadelphia, May 19, aged 72.

John W. Suggs, Jr., M.D. Southern Medical College, Atlanta, Ga., died at his home in Prattsburg, Ga., May 9.

Book Notice

INFECTION, IMMUNITY AND SERUM THERAPY. In Relation to the Infectious Diseases which Attack Man; with Considerations of the Allied Subjects of Agglutination, Precipitation, Hemolysis, etc. By H. T. Ricketts, M.D., Instructor in Pathology, University of Chicago. Cloth. Pp. 600. Illustrated. Price, $2.50. Chicago: American Medical Association Press, 1906.

This book is a reprint of a series of the much appreciated articles on immunity which appeared anonymously in THE JOURNAL during 1905, with a number of additions and such revisions as were made necessary. The type is large and the reading made easy by convenient side headings. The book is divided into two parts, the first dealing with the fundamental principles of infection and immunity, natural and acquired, and the second with the main facts of infection and healing in the various infectious diseases. The author is to be congratulated on the thoroughness, the simplicity, and the clearness with which he presents the intricate and difficult subject largely the outgrowth of the active investigations of the past few years in this field. He has avoided, and we think wisely in a work of this character, any evidence of partisanship as regards the different theories, especially the phagocytic and the humoral, which have dominated these investigations, and particularly because, as knowledge increases, it is becoming more and more evident—and this Dr. Ricketts shows very clearly—that no single theory is applicable to all infectious diseases, but that the mechanisms emphasized by the different theories all play a significant part though not to the same degree in every infectious process. In Dr. Ricketts' book there is made available to the general medical reader desirable and important reliable information concerning immunity and infection now contained in special technical journals not usually in the hands of physicians and students, and the book, therefore, has a distinct field. Only comparatively little of this recent knowledge has found its way into text-books in common use, and then usually in such condensed form as to be difficult to understand. Physicians frequently complain of the fact that they are unable to read intelligently discussions on the subject of immunity and serum therapy because of the many new terms used and the new methods of experimentation. Many of these terms, made necessary by the growth of our knowledge of the subjects in question, have not yet crept into our dictionaries and consequently the reader often is quite helpless in dealing with articles in current literature. The index to this book is unusually complete and will be of great aid to the wide-awake and plastic physician and student who desires to keep in touch with so important a subject.

Miscellany

MY ANSWER TO "MEDICAL FORGERIES."

G. L. Hagen Burger.
BOSTON.

To the Editor:—Unfortunately for Dr. Van Meter,[1] he based his prognosis *a priori* on false premises, as will appear when the curtain falls. Ever since civilized man has been able to peruse the pages of history he finds duality in all things. And so here there are two sides to this question.

My aim in life has been to know, to see, to search, to labor. My life's aim has been, and I hope will be, one of service. Replying to the attack as to my titles, it is, therefore, hard for me to see that I had no right to accept them for the work and research I had rendered. Moreover, my name, which is made the subject of comment, was given me without choice. I have had no other, within my period of memory.

THIS WONDERFUL MEDICAL SAVANT'S HISTORY.

My history differs from that alleged. Some day I will furnish data for Dr. Van Meter to rewrite my real record. Had it been inquired into impartially it would appear that I was born in Hetten Leidelheim, Rhein.-Pfalz, Bayern, Dec. 4, 1864. After the usual training I studied natural sciences in Germany and Holland in the early '80s, and did not graduate, as alleged, from a veterinary college in Brooklyn. I never studied law. During 1890-91-92 I studied toxicology, forensic, preventive and comparative medicine, with other subjects, at the American Veterinary College, State University, New York City. There I took the first prize in comparative anatomy when I received my degree for the mounting and dissecting of a human fetus. In 1894 I passed the municipal service examination for the Bureau of Chemistry, City of New York, with the highest rank (9373 1/30) among sixty applicants, and was appointed to the service, as is evidenced by a copy of paper which I have filed with the editor.

In 1897 I went to Montana and presented my application for examination to the secretary, Dr. Chappell, together with the degree I had received from Kiel, Germany, a year before. I passed the examination and was admitted to practice. The percentages attained are filed with this article and were made by affidavit of Secretary W. C. Riddell. They are as follows: Anatomy, 88; physiology, 80; materia medica, 80; therapeutics, 89; histology, 84; diseases of women and children, 67; chemistry, 72; eye and ear, 79; medical jurisprudence and toxicology, 90; surgery, 81; diseases of the nervous system, 78; obstetrics, 86; preventive medicine, 68.

I agree with Dr. Van Meter that the crucial test of a practitioner's qualifications can not be determined by a diploma. The responsibilities are twofold—on the applicant and the examiner. The man who judges the candidate must be of a superior mind. His sense of justice must be unquestionable. Some such men are on the Colorado State Board. I refer to President Dr. W. T. Miles, Dr. C. K. Fleming, Dr. David Strickler and Dr. G. McHugh. Their kindness to me has fallen on fertile soil, and I shall never give them cause for regret.

"CAREER IN MONTANA AS A SELF-STYLED SPECIALIST IN ABDOMINAL SURGERY."

Had I had my choice in the matter, perhaps fate would have thrown me among other men than gynecologists, but I took what was offered me and have done the best I could ever since.

"HIS FIRST CELIOTOMY ON MRS. A. J. SCHUHMACHER." ..

I wish to state that I had several celiotomies the same month in the same hospital, not mentioning others in which I witnessed and assisted some eminent men, not only in this country, but abroad. With the assistance of Drs. Bernheim and Schultz, the latter city physician of Butte for many years, I operated on Mrs. Schuhmacher for an ovarian tumor, which was removed. The patient recovered from the operation, but was taken with pneumonia three weeks later and died the same night. A copy of the full report of this case, as per record of Sisters' Hospital, Butte, with assistants and consultants, is on file with the editor. At some later date I hope to have published the full report of this case.

Dr. Van Meter refers to her husband's bringing my earthly career to an end and states that "with aching bones and bandaged wounds I left the state between suns." Would that show that he would indorse an assault on an operator who loses a case? This, regardless of conscientious care in the preparation and after-treatment of his case. His attack implicates the other gentlemen who assisted in the operation and after-treatment. What is his purpose? To help our profession? As a matter of fact I was in practice in Montana for three years after that operation and the assault made on me by Schuhmacher. For verification I refer to the courts, Sisters' Hospitals, Butte and Helena, Mont., and to the state and city license collector of the city.

In the spring of 1899, six months after the death of Mrs. Schuhmacher, and while our bills were in the hands of attorneys for collection, Schuhmacher, while intoxicated, assaulted me, when my back was turned, with an iron billy, in my own office, for which offense he was later held under $2,000 bail for assault in the first degree. Out of consideration for his family I refused to prosecute him, for which I was censured by the other physicians, whom he had also threatened. He declared then that he would spend $50,000 to make me all the trouble he could. The methods he used for this purpose will appear later.

Dr. Van Meter goes on to say that a few months after the operation I made my début in Colorado. When an individual is as careless in such serious statements and juggles with time as he does, would it not seem that there is an ulterior motive other than to bring to justice a man who, according to Dr. Van Meter, is neither morally nor educationally fit to practice his profession?

Supposing now, as I have a right to suppose, his peers judge Dr. Van Meter's morale, I fear in advance and sympathize with my accuser that the pendulum swings in a direction other than in his favor.

As to my hobby, I refer to the manuscript read before the Æsculapian Society, Canada, as published by the *Queen's University Journal*, February, 1903. If a pseudo-scientific crank, I am willing to be convinced, but much prefer the opinion of others in my profession if given a chance to be heard.

BOARD'S FIRST KNOWLEDGE OF MY PRACTICING IN COLORADO.

As to the board's first knowledge of my practicing medicine, in which my assailant shows a unilateral palsy in not stating the true facts of the case, he says that I was arrested for reporting a case of smallpox as typhoid. First, I was not arrested, but summoned; second, I reported nothing, as I had nothing to report; third, I was not practicing medicine, but only asked to see a case in consultation with the family physician, which, I thought, I had a perfect right to do as a licensed practitioner from a neighboring state. I was discharged in court, the judge saying that he did not see why I was before him. Here is *nuda veritas*. For verification I refer to the health department, municipal court of Denver, and file a copy of the entire report with the editor.

The first information as to my practicing medicine without a license was not, as Dr. Van Meter alleges, by notification of the board, but through a newspaper article, contemporaneous with the smallpox case. I then called on Dr. Van Meter on Jan. 4, 1902, and informed him that I was not practicing, but only in consultation on the smallpox case. He said it was best to pay him the fee of $5 and leave my credentials with him. The following day I handed my check, my Montana license and my New York Postgraduate Medical School and Hospital certificate to Mrs. Van Meter, in the absence of the doctor, together with a note, in effect that I presented myself with credentials for examination.

PRESENTATION OF CREDENTIALS TO DR. VAN METER.

The following day Dr. Van Meter asked if I had an M.D. degree. I told him that I made my Doctor of Medicine in Kiel, but did not have the degree with me, as it was in Montana, but that I could have it in a few days. He handed me a receipt for the check, which he said was equal to a temporary license. He held in his hand a paper and asked me to sign it, which I did. I was also informed that when the board met I would be told whether I could practice without an examination.

1. THE JOURNAL A. M. A., Feb. 3, 1906, p. 324.

Five or six days later my things arrived from Montana. I presented my degree, which Dr. Van Meter examined, returning it with the query as to how long I had studied at Kiel. I replied that I had never studied at Kiel, that I presented my application and consequent dissertation there while studying in Berlin, where I collected my material for my thesis. He said that the law required that one must have studied three or four years in one school, from which an M.D. degree is received; otherwise the candidate must take an examination. I assured him of my willingness to take the examination, although I had come to Denver merely to present my work to the profession to get their opinion as to its feasibility. He asked me how long I had practiced in Montana, to which I replied, "From the fall of 1897 to several weeks ago."

Several days later a letter from a friend to a well-known physician in Montana, against whom I testified as an expert witness several times with the city coroner, when he was tried for murder as the result of illegal practice, was shown me by Dr. Van Meter. This letter declared, among other things, that the signatures on my degree were non-genuine and that there was no record at Kiel of such a degree. The secretary said there was something wrong with it and asked if he could see my degree again: *Mens sibi conscia recti*, I gave it to him again and consented to his retaining it.

I positively deny in this connection that I was ever asked or ever made to any one connected with this board any sworn statement while applying for registration, but had I been asked I would have readily consented at that time.

At this time Schuhmacher, whom it will be remembered was last mentioned in Montana with the threat on his lips to spend $50,000 in making trouble for me, visited Dr. Van Meter. Living across the street from the latter's office, I saw him emerge frequently from the doctor's office. Why he was there I hope to publish some time hence.

LETTERS FROM MONTANA.

Following these interviews, emanating from the secretary of the board in Colorado, articles of my shady career in Montana were published in the Denver papers, which brought forth inquiries as to my professional character and standing. From former professional associates and members of the Associated Charities Association of Helena, of which I was an executive member during the last two years of my residence in that city, the following replies were received, of which a few excerpts are stated. Copies of the letters are on file with the editor:

HELENA, MONT., Jan. 29, 1902.

Replying to your letter of recent date, I would say that I have been county attorney for the past three years, and, as such, have had to do with criminal charges preferred against anyone residing here. I do not know of any charge ever having been preferred against Dr. Hagen Burger. So far as I am informed, he is straightforward, honorable, upright man in all his dealings. While a practicing physician in this city, I had occasion several times to use him as a witness in criminal proceedings in our courts here, and found him able, capable, bright, intelligent, and a most excellent witness. I am inclined to think there is a personal grievance which prompts the letter you write.

O. W. MCCONNELL,
County Attorney, Lewis and Clark Co.

Another letter stated that:

He was always regarded highly here, and is so still. We never heard the slightest word against his character or professional standing, and can only think that some personal animosity must be back of these accusations.

Another reply stated:

He has commanded our highest esteem always, and has enjoyed, as far as I know, a good reputation.

DEMAND FOR EXAMINATION.

The publication of these newspaper reports prompted me to consult an attorney, the Hon. J. Warner Mills, who accompanied me to the secretary's office, demanding an examination before the full board. I was abruptly informed by Dr. Van Meter that he was the whole board. He later tried to get the board together, but failed to get a quorum. When I renewed my demands for an examination Van Meter rose from his seat, with an epithet, and rushed for me. My lawyer insisted on an examination before that board, which was refused. The assault attempted was prevented by Mr. Mills stepping between us and ordering him to desist. I informed Dr. Van Meter that I had not come to fight, but to meet the board, as was my privilege.

THE TRIAL.

Several days after this scene a warrant was issued for my arrest on the charge of practicing medicine without a license, for perjury and forgery. I was held under $500 bail, which was promptly furnished without any deception on my part, as alleged. On April 8 I received a letter from the secretary (copy of which is on file with the editor), to the effect that my license was refused, owing to conclusive evidence that the Kiel document I presented was a forgery. I repeatedly requested prosecution, since he had conclusive evidence, and waited from April to July, unable to get a trial. On June 9, on motion of my attorneys to quash the proceedings, Judge Palmer, in granting the motion, as per record of June 9, 1902, No. 15,448, said: "This man made no affidavit under oath, and consequently there can be no perjury. That charge is dismissed. The other charges I will take under consideration."

Later the complaint against me for practicing medicine and forgery was *nol. prossed*, as Dr. Van Meter himself stated, in letters and affidavit, 1903-04, to the Senate of Queen's University, of which copies are in my possession. Compare his accusations with his own affidavits and later publications in this journal. I charge that on his own affidavits or in his articles he has deliberately falsified the facts.

EXAMINATION GRANTED.

After much delay I called on the president, Dr. Miles, in July, and presented myself again for examination. I took the examination at his office, lasting one week, in which I failed. His certificate gives the following rating: Surgery, 46; chemistry, 70; diseases of women, 90; anatomy, 11.5; physiology, 70; practice of medicine, 50; pathology, 87.5. Kindly note difference in rating.

After reading my three papers in which I failed to President Miles, he said that he was in favor of my reading my entire papers before the full board. Some members refused to attend the meeting. Dr. Miles then suggested that I read my papers to them at their offices. Some gave me an audience and others refused. I reported the matter to Dr. Miles, July 23, and on August 9 he said (and I quote Dr. Miles' words *verbatim*): "Doctor, you ought to have your license. I am in favor of it and that your papers shall be read before the whole board." Two letters received from members of the board were shown Dr. Miles, who said: "Now, doctor, I believe there are some members of the board prejudiced against you because of the scrap you had with Van Meter."

Finally, after several months, by consent of the board, I had typewritten copies made by their stenographer, every page compared and sworn to and open for the inspection of any member of the profession, as it appears by affidavit, a copy of which is filed with the editor. I mandamused the board to grant me a license. Some of the members suggested that I go somewhere else to practice. I replied: "I have done nothing wrong here. Why should I go away? Your secretary must prosecute me first and make good his threats."

OPINIONS OF OTHER PHYSICIANS.

I submitted my papers to men of high professional standing in Denver and other cities. Some of their replies I append in brief. These copies of letters are on file with the editor. From Dr. George C. Stemen, for fifteen years professor of surgery in the Fort Wayne College of Medicine, now a member of said board in Denver, I received the following:

I unhesitatingly say that the papers submitted to me are among the best I have ever examined, and show beyond question of doubt that the applicant is qualified in every department of medical science, and above the average among medical men.

From Dr. Bates, professor of anatomy, Women's Medical College, Northwestern University, Chicago, from 1883 to 1889, the following was received:

They give ample evidence of his medical knowledge and of his unusual thoroughness and scientific character, and that he is an earnest and constant student, an ethical physician, and possessed of the highest ideals of the duties and privileges of our profession."

Dr. Hart's letter states:

Reading your examination papers, I was a member of that board many years, and never saw papers showing the competency yours did.

The above attestations as to my medical attainments are of themselves answers to Dr. Van Meter's accusations that I lack

previous education and am of the country bumpkin type of student. Many of this class helped to make history what it is.

MY STAY IN NEW YORK.

I have said that the charges preferred by Dr. Van Meter through the county attorney at Denver were *nol. prossed.* Before this was granted, after requesting trial many times up to November 1, and failing, at the suggestion of my bondsman and attorney I determined to get evidence to support the moral side of my case, in this country first, and, failing, to go to Germany. Accordingly I left Denver Nov. 1, 1902, for New York, where I presented my case to Dr. J. R., representative of the German consul-general in New York City. Special investigation revealed the fact that there was no record of the degree granted me at Kiel and that the signatures were denied.

This made me more desirous than ever to go to Kiel and to ascertain the identity of the persons responsible for my calamity. I was taken ill at that time and confined to bed for five weeks. After recovery I had another consultation with the consul's representative, who again advised me I could do nothing effective in Germany, since I was reduced physically and financially to a minimum. At the same time I received advice from my bondsman stating that the case would be discontinued and advising me to go to no further expense. My professional friends in New York concurred in the following advice given me by Dr. Niles in Denver, in July, 1902: "Doctor, now listen to me; go to any good school which will admit you in the final year, get your degree, come back and nothing further will be done in the matter."

I acted on the advice given and went to Queen's University and notified my attorney and bondsman to that effect, offering to come back any time if wanted. I was notified that it was not necessary, unless I wished to proceed with the mandamus writ.

THE ALLEGED FRAUD PRACTICED ON QUEEN'S UNIVERSITY.

As to my alleged fraud practiced on Queen's University in my entrance and final examination, there is nothing so sublime as a fact. The records of the university will not show that I presented any degree of any German or other university, as proved in the Senate hearing on Dec. 20, 1905, on which hearing I insisted, after a lengthy correspondence, as per letter and request of June 5, 1905, to the dean of the medical faculty. I also offer affidavit of Arthur McCabe, M.D., as follows:

GLOUCESTER, March 3, 1906.

This is to certify that I was with Dr. G. L. Hagen Burger in Kingston when he presented his credentials to the secretary of the faculty of Queen's University; that he did not present any German degree, that he did not state that he was a graduate of any college or an M.D., but simply a licentiate from the state of Montana; that I was present when he was told that he could register with the credentials which he presented to the secretary of the faculty.

Sworn and subscribed.

As to my final standing in examinations, I quote my percentages from the blackboard of the university and *British Daily Whig*, April 8, 1903:

Written and oral examination in mental diseases, 95 per cent.; senior practice of medicine, thirty-ninth place; clinical medicine, sixth place; senior obstetrics and gynecology, seventh place; clinical pathology, thirty-third place; surgery and surgical anatomy, unknown to me.

As to my fellowship degree of the Royal College of Physicians and Surgeons, this was granted me on April 4, 1903, by the censors, Prof. Fowler, dean of Queen's University, and Prof. M. Sullivan, member of parliament and professor of surgery, and Prof. E. Ryan, professor of anatomy, on the presentation of a thesis on original feeding experiments on chickens by feeding with meat, and the production of gouty arthritis with pathologic specimens and microscopic findings, as well as an oral examination, lasting four hours, covering scientific subjects in medicine.

As to my desire for unearned professional titles, I file copy with the editor of Professor Sullivan's convocation address, April 8, 1903, in which he referred to two gentlemen who were awarded this year the fellowship degree by the faculty of Royal College of Physicians and Surgeons, and who were well worthy of the honor for the scientific research work they had rendered, etc.

ALLEGED IMPOSITION PRACTICED ON MASSACHUSETTS STATE BOARD OF MEDICAL EXAMINERS.

As to the imposition practiced on the State Board of Medical Examiners and Censors of the Massachusetts Medical Society, I offer the following, through the kindness of Drs. Harvey and Crandon, secretaries:

Surgery, 77.5; physiology and hygiene, 64; pathology, 81; obstetrics and gynecology, 77; diagnosis and practice of medicine, 84; anatomy, 66; general average, 74.9 (Dr. Harvey).

Dr. Hagen Burger passed with a percentage of 72; 60 per cent. is necessary to pass (Dr. Crandon).

In April, 1903, I was engaged by the College of Physicians and Surgeons of Boston to instruct third and fourth year students in clinical diagnosis and lecture on gynecology, which I did during that semester. In April, 1904, I was appointed, on the recommendation of two of Boston's eminent professors of surgery in one of its universities, as gynecologist to the Mt. Sinai Hospital (as per letter on file with the editor). In this capacity I have served ever since, as shown in the following extract from a letter received from the president of the board of trustees of that hospital:

Jan. 25, 1906.

. . . We have been more than pleased with the manner in which you conduct your clinics, the great interest you have shown in the development of this institution and the care you have taken in treating the patients in your department. All are greatly appreciated by us (Leon Pickert, president).

In the fall of 1904 I applied to the Boston City Hospital for clinical work and was appointed as volunteer assistant. A copy of this letter is also on file with the editor.

MY OLD-TIME EFFRONTERY.

I came to Boston to practice my profession after being licensed, and in an humble and ethical way attended to my clinical work and teaching, and with the moral assistance of my brother physicians, to many of whom I am greatly indebted, I gained a foothold in the Athens of America, notwithstanding the obstacles Van Meter has placed in my way, as evidenced by letters sent to the Massachusetts State Board of Medical Examiners, the Massachusetts Medical Society and Queen's University, copies of which are in my possession. All this time I have worked with a view to enabling me to go to Germany when the proper time comes and to learn how much I have imposed or how much I have been imposed on, also the methods by which others seemingly made me an imposition. Until then, and until the Senate of Queen's University has spoken, it would be premature for me to say anything further about the degree.

MY ASSISTANTSHIP IN CLINICS.

I said that I was in Chauta's, Kehrer's and Leopold's clinics. In regard to other clinics I said, "late at," meaning that I had done clinical work under the direction of the men in charge, as volunteer and hospitant, usually called "hospitieren." I mentioned that I was last in Boston at Cabot's and Hewes' clinic and laboratory, and said nothing about having been an assistant there. Statements otherwise are either a mistake or a misprint by some one. Through the courtesy of Dr. Cabot I utilized my mornings in his clinic waiting for Dr. Hewes to return from his vacation, to take his laboratory course.

MY OVERFLOWING WITH PERSONAL PROCLAMATIONS OF SKILL.

I know nothing of these. I am a good listener to a physician who talks shop, and I will express an opinion when asked, when I have one; if not, I say I do not know and try to learn. Anyone who has ever been associated with me on a case in the past will testify that I leave no stone unturned to help my patient with all available and scientific means known to me, regardless of whether I receive a guerdon or not. When in doubt I seek counsel of older and wiser heads. Often I have been in doubt and never have I been afflicted with the egoism of the "know-it-all" doctor.

MY "UNFAILING NERVE."

This is the courage resulting from the consciousness of having done and of doing no wrong.

DR. VAN METER'S STUDY OF CHARACTER.

Since character makes its own destiny, I fear naught, not even malice. Never does a man portray his own character better than in the manner in which he portrays another's.

MY TOTAL DISREGARD OF THE CONSEQUENCES OF MY WRONGDOINGS.

Let me say this: I feel that I know right from wrong and am aware of the consequences of wrong. Furthermore, I know of no instance in Europe or this country where I have willfully deceived or defrauded anyone. I am willing to feel that "heavy hand of the law" for any crime I have committed, as I have never shirked my duty knowingly anywhere, and fully believe in the maxim, *Salus populi, suprema lex.* I know right from wrong to such a degree that even now I am endeavoring to teach Van Meter a better and a nobler aim in life than the persecution of one whose every energy is bent on the education and uplifting of suffering humanity, and one who is ever arrayed on that side of the profession and society that works toward that achievement.

MY SANITY.

I know full well, as a physician, the responsibility and trust vested in me, but am further willing for the benefit of mankind to have a committee of psychiatrists appointed, excluding Dr. Van Meter, of course, to pass judgment on me, and, if declared *non compos mentis*, or a criminal, as my assailant designates me, to abide by their council and decision. Moreover, I would ask their help, if possible, to overcome the depraved, moral and criminal instincts this close observer of human nature has detected in my character, "inspite of his self-esteem as a reader of human nature." *O vanitas, vanitatum!*

His sophistry and paralogism evidently know no bounds. I am ever ready and willing to improve myself, and no man recognizes more than I the dictum that "individual improvement is the only keynote to progress universal."

I know that I have many faults and often err. Who has not? But such deep chrome yellow epithets as "bunco steerer," "scamp," "scoundrel," "impious wretch," "arch medical impostor," and "criminal of the worst type," I resent. They are false and malicious. I further deny that I offered knowingly any false or forged evidence before any state board, in the West, in Massachusetts, or to any university in Canada.

I challenge Dr. Van Meter to come to Massachusetts and to Canada, and to prove his accusations. I am as willing to be prosecuted here as I was in Denver, where I waited and pleaded eight months for a trial.

CONCLUSION.

In conclusion I would suggest to this now self-styled famous author of "Medical Forgeries," that the asylum of oblivion is full of moral assassins.

"Authors and readers now find, as once Achilles found,
The whole is doubtful, where are so many parts unsound."

Dr. Van Meter's Reply.

A copy of the above was sent to Dr. Van Meter, who writes:

"The foregoing answer to 'Medical Forgeries' is such a garbled misstatement of facts and assertions of that which is untrue that it does not demand from me anything further than a general denial.

"The reproduction of the forged Kiel diploma; the admission on the part of Hagen Burger that 'special investigation revealed the fact that there was no record of the degree granted me at Kiel and that the signatures were denied;' and the following letter from the dean of Queen's University are all-sufficient to convince any doubting Thomas as to the true character of the man."

MEDICAL FACULTY, QUEEN'S UNIVERSITY,
KINGSTON, ONT., Dec. 23, 1904.

Dr. S. D. Van Meter, Denver, Colo.:

Dear Sir:—In reply to your letter of the 19th, I beg to say that Hagen-Burger is without doubt the same man who recently received our degree of M.D.

He came to us in the fall of 1902, and presented a German degree, certificates of license to practice in the states of Colorado and of Montana and a certificate of having been an inspector for the board of health in New York for four years. On the strength of these he was admitted to fourth-year standing. At the spring examinations in 1903 he failed to qualify. In September, 1904, he appeared for supplementary examinations and passed.

At a meeting of the faculty held to-day the matter was referred to me to consult with the solicitors of the university as to revoking his degree. When in Boston the early part of this week I saw his sign in a window on Massachusetts Avenue, near the corner of Huntingdon Avenue. One of my former students told me this was the man who was registered with us two years ago.

I am obliged to you for your information, and your courtesy in writing so fully. I also return his letter. About the date of your affidavit he came here. Did he leave to avoid the criminal action against him? Was the trial completed or does it still stand?

J. C. CONNELL, Dean.

A STUDY IN PERSONAL HYGIENE.

Thomas Scott Lowden has made a study[1] of the care taken by Americans in regard to their health based on the responses to a questionnaire on "Keeping Well" sent out by President Hall of Clark University.

The questions were asked in some detail relating to: 1. The disease feared. 2. Affectation or feigning of illness, and what aroused the desire for health. 3. Habits regarding food. 4. Use of medicines. 5. Toilet appliances. 6. Sleep. 7. Exercise. 8. Dress. 9. Work and study. 10. Precautions against inherited disease. 11. Epidemics. 12. Experience with quacks and "patent medicines." 13. Results of experience of sickness on personal regimen. 14. Views regarding exposure, etc. 15. Sexual hygiene. 16. Mental states and environment. 17. Sketch of an ideal life to maintain oneself at the top of his condition and live as long as possible.

The questions were addressed to intelligent people who were interested in health, morals and education. Personal hygienic experience was sought, not theories. Four hundred and fifty manuscripts were returned by students, teachers, professors, physicians, ministers, and the public generally. The papers exhibited a sane view of the subject with little tendency to awaken morbid interest. Seventy per cent. of those answering the question fear disease, 38 per cent. of these from heredity, 13 per cent. from personal experience, and the rest from observation or report. The author quotes several answers showing "what a nightmare weight hereditary fear, whether well founded or imagined, is likely to become." The precautions taken against heredity show some understanding of hygiene, and some are doubtless doing all for themselves that can be done. The answers in regard to the affectation of invalidism are peculiarly significant. One hundred and twelve answer affirmatively and about an equal number negatively. The papers indicate that it is the feminine sex that is given to feigning illness for the sake of sympathy, to attract attention, etc. Boys sometimes do so to avoid work.

Of 255, 44 per cent. eat some particular food for the sake of health, and 62 per cent. are obliged to abstain from some kinds of food. Three meals is the rule, and the spirit of the papers is strong against the "no breakfast" idea. Bolting food is objected to. Vegetables and fruit are the leading foods, but nearly all want meat once a day, the average twice, so that no tendency to vegetarianism is shown. Water is the preferred drink. Coffee is abstained from by some for fear of headache and taken by others to prevent it. Many can not get a reaction after the cold bath, but those who do, find it highly beneficial. All testify to the benefits of rubbing the body after the bath. Massage is not much practiced. Reports regarding cosmetics are meager. Many are trying to improve the skin and complexion through general hygiene. The evidence shows a lack of care of the bust, hands, feet and teeth. The usual time of sleeping is from 10 p. m. to 6 a. m. Three times as many report nine hours' sleep as seven; most sleep on a medium hard mattress, with light covering, in a thoroughly ventilated room; most completely change the clothes worn during the day. The very few who resort to drugs to induce sleep have found the after-effects evil. The greater number speak against eating before going to bed, but some find it a help. Various methods of inducing sleep are described.

Walking is the most general form of exercise, but other special forms are favored by a few. There is strong opposition to "apparatus exercise"; neither gymnasium nor bedroom apparatus is in high favor, nor the more violent forms of exercise. Most of the women wear corsets.

The author believes that more intelligent people resort to

1. A dissertation submitted to the faculty of Clark University, Worcester, Mass., in partial fulfilment of the requirements for the degree of Doctor of Philosophy and accepted on the recommendation of G. Stanley Hall. Pedagogical Seminary, March, 1906, vol. xiii.

quackery than the returns indicate. All who report having had such experience deplore it. The papers from Poland show much faith in quackery. The quack in Poland is usually some old woman herb doctor and the faith element undoubtedly enters into the real or supposed cure. The answers of the men in regard to sexual matters show the evils of ignorance in regard to physiologic sexual function. The escape of semen is regarded as abnormal and leads many to resort to quacks or advertised nostrums.

The second chapter deals with the question of medicine and quackery and makes interesting and profitable reading. The following questionnaire was submitted to druggists:

1. *Have "patent medicines" any merit?* The majority of druggists agreed that they have no merit, unless, from the alcohol which they contain. The danger from alcohol in medicines, supposed to contain none, and especially the danger from the substitution of wood alcohol, is emphasized. The price at which the "patent medicines", comparatively harmless, are sold makes them fraudulent. "All evidence from druggists, chemists, physicians and medical journals amasses itself to prove that 'patent medicines' are costly and dangerous to body, mind, life and morals, and that their producers are deceivers and robbers."

2. *What sells "patent medicines"?* There was but one answer given by all druggists visited. "'Patent medicines' are sold wholly through the susceptibility of the people to advertisements."

3. *Who buy "patent medicines"?* The sales, by no means, are confined to the poor and ignorant. The rich and intelligent buy much. One druggist says, "The ministers of the city are among my best 'patent-medicine' customers." Six druggists report that at least 75 per cent. of all "patent medicine" is taken by women. "Patent medicine" is given to the children and consumed largely by the young, but the real "patent-medicine" period sets in about 28 or 30 and lasts until 55, use being most marked between 40 and 50. The medicine sold depends partly on fashion, but mostly on efficient advertising.

4. *Do physicians make use of "patent medicines"?* One-third of the druggists visited state that the physicians that deal with them make more or less use of "patent medicines". All, however, emphasized the fact that the majority rely almost wholly on the pharmaceutic compounds. Six druggists said physicians buy "patents" of them, change the label, or put the medicine into their own bottles under their labels. "It may be said that the physician generally frowns heavily on 'patents', compounds little himself or has his druggust to do it, but resorts to the compounds sent out by the pharmaceutical houses." One druggist says: "The physician frequently does not know what he is giving. It is not infrequently hit or miss with him as in diagnosing diseases. Physicians are as gullible as the laity. A live up-to-date agent of a compounding house can sell them most anything, as our full shelves of this sort of stuff show."

5. *What is your estimate of the work of the average physician?* According to the druggists "the average physician is incompetent, knows neither disease nor medicine; neither the science nor the art of his so-called profession; has little interest in his work other than a commercial one; will stoop to any practice for money, and the drug business is being constantly lowered by his demands."

It is impossible to believe that the use of "patent medicines" by physicians is sufficiently common to justify the above statements or that many intelligent druggists entertain the sentiments toward the medical profession attributed to them by the author. In his investigations he must unfortunately have come in communication with pharmacists actuated by jealousy or who had been criticised for counter prescribing. It is believed that the medical profession is weak on the side of mental therapeutics. The physician is often unable to apply the stimulus of a strong personality.

6. *What do you know of the advertising doctor and the quack?* "All evidence goes to show that the advertising doctor is flourishing and is steadily on the increase. Physicians state that comparatively few men having private diseases have gone to them. More resort to the druggist, but the majority seek assistance of the traveling doctor and 'advertiser,' who are successful in playing on the whole gamut of fears and succeed in robbing thousands who have no sex ailments. The newspapers are accomplices in this nefarious work. Recently one of the leading dailies had six full columns on one page, besides scattered notices, devoted to doctors advertising 'lost-manhood cures.'"

7. *What is your opinion of the drug business as it is conducted today?* Of the thirty-five druggists interviewed, not one is satisfied with the business. The older druggists say the business is no longer so clean nor professional as it used to be.

The third chapter deals with the relations of emotion and health, recognizing the injurious effects of worry, anger and depressing emotions. The influence of pessimism is contrasted with the life-joy "that knows no bounds, welling out of the animal surplus, the source of all real health. The remote end of personal hygiene is racial welfare."

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish name or address will be faithfully observed.

COLLECTION AGENCY.

WICHITA, KANS., May 15, 1906.

To the Editor:—I understand that there is a collection agency somewhere that makes a business of finding and collecting from railroad men, no matter where they are, so long as they are in the United States and in the employ of a railroad company. Can you give me the address of this concern. C. E. CASWELL, M.D.

THE PHYSICIAN AND THE AUTOMOBILE.

HAVERSTRAW, N. Y., May 6, 1906.

DR. N. B. BAYLEY, Haverstraw, N. Y., writes: "I live in a moderately hilly country, with fair roads, but a ten-horse power machine does not fill the bill satisfactorily, I know that is the trouble with many other men. It is better to wait until one can buy a satisfactory car; it will save work and worry. My conclusions, based on experience and observation, are that to find satisfactory results the following factors must appertain: Either there must be mechanical ability to meet all ordinary difficulties that arise, or financial ability to employ competent assistance always at hand to keep the car in order and to drive. Also, the motor car must have reserve power sufficient to meet the exigencies constantly arising in a physician's practice. To traverse hills or bad, muddy roads with ease requires more power than the majority of runabouts possess, without straining the engines to their full limit, entailing, as a consequence, frequent overhauling. In a locality with hard roads a car with less power may give good service, but oftener a physician's car needs as much power as an ordinary tonneau car, which, with intelligent care and its reserve power will be an agent of pleasure and profit.

WATER PURIFICATION.

KAUFMAN, TEXAS, May 11, 1906.

To the Editor:—Please inform me through THE JOURNAL whether or not water settled with alum (℥iv to 800 gal.) and used for household purposes, has any injurious effects. C. M. GRIGSBY.

ANSWER.—The use of alum and similar coagulants should be adjusted to the alkalinity of the water to be tested. In some waters where the natural alkalinity is deficient, provision should be made for increasing it to the extent necessary for the use of the amount of coagulant required for complete purification. When this is done there is no reason to suppose that the use of these substances in proper proportions is injurious to health. We may add that sulphate of alumina is much more commonly used than alum as a coagulating material. Copperas (ferro-sulphate) together with lime has also been successfully used.

State Boards of Registration

COMING EXAMINATIONS.

NEBRASKA State Board of Health, State House, Lincoln, May 29-30. Secretary, George H. Brash, Beatrice.

MINNESOTA State Board of Medical Examiners, Old State Capitol Building, St. Paul, June 5-7. Secretary, O. E. Linjer, Minneapolis.

WYOMING Board of Medical Examiners, State Capitol, Cheyenne, June 6. Secretary, S. B. Miller, Laramie.

MICHIGAN State Board of Registration in Medicine, Ann Arbor, June 12. Secretary, B. D. Harison, Sault Ste Marie.

TEXAS State Board of Medical Examiners, Dallas, June 12. Secretary, T. T. Jackson, San Antonio.

OHIO State Board of Medical Registration and Examination, Cincinnati, Cleveland and Columbus, June 12-14. Secretary, George H. Matson, Columbus.

BOARD representing the Medical Society of Delaware and Board representing the Homeopathic Medical Society of Delaware State and Peninsula, former held at Dover, and latter at Washington, June 19. Secretary, P. W. Tomlinson, Wilmington.

NEW JERSEY State Board of Medical Examiners, Trenton, June 19-20. Secretary, E. L. B. Godfrey, Camden.

NEW YORK Boards of Medical Examiners, Albany, June 19-22. Secretary, Charles F. Wheelock, Albany.

PENNSYLVANIA State Board of Medical Examiners, Annex Hotel, Pittsburg, and North Building, Philadelphia, June 19-22. Secretary, Joseph E. Willetts, Pittsburg.

VIRGINIA State Board of Medical Examiners, Richmond, June 19-22. Secretary, R. S. Martin, Stuart.

MARYLAND Board of Medical Examiners, Baltimore, June 20-23. Secretary, J. McP. Scott, Hagerstown.

SOUTH CAROLINA State Board of Medical Examiners, Columbia, June 26. Secretary, W. M. Lester, Columbia.

District of Columbia April Report.—Dr. W. C. Woodward, secretary of the Board of Medical Supervisors of the District of Columbia, reports the written examination held at Washington, April 12-16, 1906. The number of subjects examined in was 17; total number of questions asked, 80; percentage required to pass, 75. The total number of candidates examined was 18, of whom 12 passed and 6 failed. The following colleges were represented:

PASSED. College.	Year Grad.	Per Cent.
Baltimore Med. Coll.	(1905)	79.5
Boston University	(1899)	89.6
Georgetown University	(1905)	75.2
George Washington University	(1905) 79.6	79.9, 88
Hahnemann Med. Coll., Philadelphia	(1900)	88.8
Howard University	(1904)	78.9
Jefferson Med. Coll.	(1902)	82.2
University of Illinois	(1902)	82.8
University of Pennsylvania	(1898)	86.5
Woman's Med. Coll., Philadelphia	(1904)	75.2
FAILED.		
Georgetown University	(1903)	73.8
George Washington University	(1905) 49.9,	68, 73
Howard University	(1905)	71.3
Missouri Med. Coll.	(1896)	58.2

Florida April Report.—Dr. J. D. Fernandez, secretary of the Regular Board of Medical Examiners of Florida, reports the examination held at Gainesville, April 16-17, 1906. Forty-nine applicants were registered, 6 withdrew and 5 failed. Two were granted certificates under the old law, having practiced in the state prior to the passage of the act creating examining boards, and 36 passed the examination. Under the law no member of the board can issue a second temporary license. An average of 75 per cent. is required to pass. The following colleges were represented:

PASSED. College.	Year Grad.	Per Cent.
Jefferson Med. Coll.	(1886) 79; (1887)	81
College of P. and S., Baltimore	(1890) 80; (1905)	88.
Atlanta Med. Coll.	(1895)	76.2
Meharry Med. Coll.	(1902) 88; (1906)	81
Bellevue Med. Coll.	(1898)	88.5
Fort Worth University	(1905)	92.5
University of Maryland	(1897) 87.2; (1904)	90.5
Birmingham Med. Coll.	(1904)	84, 90
Vanderbilt University	(1898)	89
Maryland Med. Coll.	(1904) 83; (1906)	81
University of Georgia	(1906)	81, 89
Atlanta Coll. of P. and S.	(1906)	79, 86
St. Louis Coll. of P. and S.	(1905)	77
Atlanta College of Medicine	(1906)	89
Queen's University, Ontario	(1903)	84
Howard University	(1903)	82.1
University of the South	(1901)	75
Medico-Chirurgical College, Phila.	(1904) 92.4; (1905)	87.4
Medical College of Virginia	(1905)	80
Medical College of Alabama	(1902)	89
Manitoba Med. Coll.	(1905)	91
University of Nashville	(1897)	90.4
University of Virginia	(1905)	89
University of Arkansas	(1905)	85.2
University of Palermo, Italy	(1903)	82.7
Barnes Med. Coll.	(1905)	75
Milwaukee Med. Coll.	(1903)	81
FAILED.		
Meharry Med. Coll.	(1905) 54.7, 58.1; (1906)	47.2
University of Palermo, Italy	(1898)	70.8
Barnes Med. Coll.	(1898)	65

Minnesota April Report.—Dr. W. S. Fullerton of the Minnesota State Board of Medical Examiners reports the written examination held at St. Paul, April 3-5, 1906. The number of subjects examined in was 16; total number of questions asked, 93; percentage required to pass, 75. The total number of candidates examined was 19, of whom 14 passed and 5 failed. The following colleges were represented:

PASSED. College.	Year Grad.	Per Cent.
Northwestern University	(1901) 87.7; (1905)	82.5
Laval University, Quebec	(1905)	77.6
University of Christiania, Norway	(1895)	83.1
Imperial Alexander University, Helsingfors, Finland	(1886)	84.8
College of P. and S., Chicago	(1904)	80
Hamline University	(1900) 75; (1905)	78.1
Rush Med. Coll.	(1897) 79.2; (1905)	83.1
University of Minnesota	(1905)	78.7
Baltimore Med. Coll.	(1902)	79.5
Omaha Med. Coll.	(1902)	80.1
University of Michigan	(1890)	83.1
FAILED.		
Queen's University, Ontario	(1905)	72.7
Hamline University	(1905)	71.5
University of Minnesota	(1905) 57.8,	72
Milwaukee Med. Coll.	(1904)	71.5

At the last meeting of the board five reciprocal licenses were granted.

At this examination the following questions were asked:

MEDICINE.

1. What are the early symptoms and physical signs of tuberculosis of the lungs? 2. What findings by palpation, auscultation and percussion of the cardiac region would warrant the diagnosis of mitral stenosis? 3. What diseases cause enlargement of the liver? 4. Describe purpura hemorrhagica. 5. Give the pathology, symptoms and prognosis of infantile paralysis (poliomyelitis anterior acuta). 6. Prescribe a no-milk diet for a child of six months suffering from acute gastrointestinal disorder. 7. Give the chief points of distinction between the epileptic and the hysterical convulsion. 8. Describe and treat a case of scabies. 9. Differentiate in parallel columns between the chancre and the chancroid. 10. Trichina spiralis: its source in man and its life history.

PATHOLOGY AND BACTERIOLOGY.

1. Describe pathologic changes of intestines in case of typhoid fever. 2. Give pathology of acute lobar pneumonia. 3. Describe pathology of atrophic cirrhosis of liver: What causes the abdominal dropsy in such cases? 4. Describe pathology of atheroma of a large artery. 5. Give pathologic changes of spinal cord in locomotor ataxia. 6. Mention bacteria that are known as the common causes of inflammation and suppuration. 7. On what scientific facts is the serum therapy based? Illustrate case. 8. Describe method of microscopic examination for tubercle bacilli. 9. Name portals of infection and dissemination of typhoid bacillus. 10. What do you understand by mixed infection? Illustrate case.

ANATOMY AND HISTOLOGY.

1. Describe the heart briefly and give its nutritive blood supply and its nerve supply. 2. Describe the palmar fascia fully. 3. Name the leucocytes and describe each one. 4. Diagram a typical mucous membrane and name the structures composing it. 5. Name the branches of the abdominal aorta. 6. Name the varieties of epithelium and diagram each one. 7. Give origin, course and termination of long saphenous vein. 8. Describe the rectum and give the blood and nerve supply. 9. Describe a Peyers' patch and where found. 10. Describe a lobule of the liver, diagram preferred.

PHYSIOLOGY.

1. Locate and describe and give function of glomerulus of kidney. 2. Locate and describe and give function of spleen. 3. Same of pancreas. 4. Describe the general circulation. 5. How is the normal temperature of the body maintained? 6. Describe and explain the normal heart sounds. 7. Describe the lymphatic system. 8. What are the chief differences of function between the two nervous systems, cerebrospinal and sympathetic? 9. Describe the portal circulation. 10. What are proteids and what are the various steps in their preparation, and, finally, how do they reach the general circulation?

OBSTETRICS.

1. Give recognized causes and preventive treatment of puerperal eclampsia. 2. Describe the normal lochia. Give significance of its suppression. Fetid odor. 3. Give your method of delivering the after-coming head in cases of breech presentation. 4. How would you diagnose death of the fetus in utero at the fourth month of pregnancy? 5. Alarming hemorrhage begins immediately after delivery of placenta; uterus fails to contract. Give your active treatment.

DISEASES OF WOMEN.

1. What are the principal causes of displacement of the uterus? 2. Give three common causes of sterility in the female and treatment for same. 3. Describe fully the ovaries and Fallopian tubes and state what are their natural supports. 4. Give symptoms of prolapse of the ovary and treatment for same. 5. Give early symptoms of cancer of the uterine cervix. Differentiate from cystic degeneration; simple ulceration.

CHEMISTRY, TOXICOLOGY AND URINALYSIS.

1. Define atomic weight, molecular weight, specific gravity, chemical reaction, chemical formula. 2. Give the boiling and freezing point of water in the centigrade, Fahrenheit and Reaumur thermometric scales. 3. What is actinism? 4. What is an alloy? 5. Give symptoms and treatment of acute cocain poisoning. 6. Give symptoms and treatment of plumbism. 7. Give one reliable test for albumin in urine. 8. Give one reliable test for sugar in urine. 9. Give a chemical test for pus in urine. 16. Describe Ehrlich's diazo reaction test for urine and the clinical significance of the diazo reaction when present.

MEDICAL JURISPRUDENCE.

1. Give two positive signs of death. 2. What are the duties of the coroner's jury? 3. What is the difference between an ordinary

witness and an expert witness? 4. What constitutes a dying declaration? 5. Is a licensed physician exempt from jury duty in the courts of justice in this state?

PREVENTIVE MEDICINE.

1. Give some practical suggestions that would lessen the spread of tuberculosis. 2. What diseases are commonly transmitted through drinking water? 3. What prophylactic measures would you recommend for the prevention of typhoid fever? 4. Give a practical method of obtaining pure drinking water for the home. 5. Give a simple, practical method of ventilating buildings in this climate in the winter season.

HOMEOPATHIC MATERIA MEDICA.

1. Differentiate aconite, arsenic, bel. and gels. in fevers. 2. What three remedies are often indicated in typhoid fever? Give prominent symptoms of each, indicating their use. 3. Give symptoms indicating the use of bry, phos., ferr. phos., veratrum in pneumonia. 4. Name three remedies usually indicated in case of cholera morbus. 5. Give three leading symptoms for lyc. lach. podo. china. 6. Differentiate between sulph. mezereum, graphites and rhus. in skin troubles. 8. What is meant by dilution, potency, polychrest?

SURGERY.

1. What is dacryocystitis? Causes, symptoms, treatment. 2. What are the most usual causes of iritis? Give differential diagnosis and treatment. 3. What is trichiasis, a chalazion; granular ophthalmia, nystagmus? 4. What conditions cause deafness in children? 5. Give etiology, symptoms and treatment of mastoiditis. 6. What is a Potts' fracture? Give treatment. 7. Diagnose fracture of hip. Give treatment. 8. Given a crushing injury of a limb, what symptoms would cause you to advise amputation? Give technic of operation at junction of lower and middle third of leg, naming the tissues cut through. 9. Give the usual dislocation of the elbow. Give diagnosis and treatment of the condition. 10. How do you differentiate concussion from compression of the brain? 11. Give treatment for strangulated hernia. Describe operation for inguinal hernia. 12. Give differential diagnosis between appendicitis, salpingitis, stone in ureter, colic. 13. What conditions would cause you to choose chloroform or ether in a case? Give precautions to be observed in administering each.

MATERIA MEDICA AND THERAPEUTICS.

1. Name two extensively used alkaloidal derivitives of morphia (not salts of morphia), stating what salt of each is commonly used, purposes and dosage. 2. A child 18 months old has been allowed the ordinary table diet of the family; you are called suddenly to see it in convulsions; describe fully how you would treat it. 3. Write a prescription for calomel combined with ipecac and bicarbonate of soda, to be given in divided doses hourly for twelve hours to a child 2 years old. 4. What physiologic action of veratrum renders it particularly safe in the matter of dosage? 5. When is digitalis indicated in organic heart disease and when contraindicated? 6. Name the most generally useful emetic and give the reason for your opinion. 7. Outline briefly and clearly the proper management of a case of acute nephritis. 8. During the course of the above case, (*a*) what threatened emergency would warrant full doses of elaterium or croton oil, and (*b*) what symptoms would signal the approach of such an emergency? 9. State the dose of each of the following that you would give, together with frequency of repetition, under the conditions named: (*a*) Arsenous acid, as an alterative; (*b*) antimonii et potas. tart., as an expectorant; (*c*) tr. veratri, U. S. P., 1900, in the first stage of sthenic croupous pneumonia; (*d*) tr. strophanthi, U. S. P., 1900, in aortic regurgitation with venous stasis; (*e*) sulfonal, as a hypnotic. 10. Criticise the following prescription:

℞ Solut. strychniæ sulphat. (gr. 1 to 3i) 3i
Spts. ammoniæ aromat. q. s. ad ..... ℥ii
Misce et sig. Half a dram in water before each meal.

Rhode Island April Report.—In the report of the examination held at Providence, April 5, 1906, published in THE JOURNAL, May 12, 1906, page 1468, one candidate, a graduate of Tuft's College Medical School, 1905, was reported as having failed. We are now informed that this candidate's papers have been reconsidered and that he has passed.

The Public Service

Army Changes.

Memorandum of changes of stations and duties of medical officers, U. S. Army, week ending May 19, 1906:

Perley, H. O., deputy surgeon general, Glennan, James D., surgeon, Straub, Paul F., surgeon, appointed members of a board of medical officers to meet at West Point, N. Y., about June 1, 1906, for the physical examination of the cadets of each class at the U. S. Military Academy, and such candidates for admission as may be ordered to appear before it.

Stephenson, Wm., surgeon, Russell, F. F., asst.-surgeon, Rutherford, H. H., asst.-surgeon, appointed members of examining board to meet at Presidio of San Francisco, Cal., for examination of such candidates for appointment in the Medical Corps of the Army as may be invited to appear before it.

Banister, J. M., deputy surgeon general, relieved from treatment at General Hospital, Washington Barracks, D. C., and will return to his proper station.

Shook, Jay R., asst.-surgeon, granted leave of absence for one month and fifteen days.

Wilson, Wm. H., asst.-surgeon, ordered to report in person, May 22, 1906, to Major William H. Arthur, surgeon, president, examining board, Army Medical Museum Building, Washington, D. C., for examination for promotion.

Little, Wm. L., asst.-surgeon, reported for temporary duty at Fort Sill, O. T. Left Fort Sam Houston, Texas, May 9, 1906.

Roberts, William, asst.-surgeon, granted 10 days' leave.

Kirby-Smith, R. M., asst.-surgeon, relieved from duty in the Philippines Division, to take effect Aug. 1, 1906, and will proceed by the first available transport sailing after that date to San Francisco, Cal., and on arrival report by telegraph to the Military Secretary of the Army for further orders.

Wertenbaker, Clark L., contract surgeon, returned to Madison Barracks, N. Y., from leave of absence.

Watkins, Victor E., contract surgeon, ordered to Fort Mansfield, R. I., for temporary duty.

Reagles, James, contract surgeon, returned from Fort Snelling, Minn., to duty at Fort Keogh, Mont.

Kelly, John P., contract surgeon, returned from temporary duty at San Francisco, Cal., to duty at Presidio of Monterey, Cal.

Springwater, Samuel A., contract surgeon, granted leave of absence for two months.

Slater, Ernest F., contract surgeon, left Fort Hancock, N. J., for temporary duty at Fort Hamilton, N. Y.

Wing, Franklin F., dental surgeon, relieved from duty at Fort Riley, Kans., and ordered to duty at Fort D. A. Russell, Wyo.

McCallum, Francis M., contract surgeon, returned to Fort D. A. Russell, Wyo., from leave of absence.

Richardson, George H., contract surgeon, assigned to duty at the Presidio of San Francisco, Cal.

Hogan, David D., contract surgeon, left San Francisco, Cal., on leave of absence for one month.

Navy Changes.

Changes in the Medical Corps, U. S. Navy, for the week ending May 19, 1906:

Cordeiro, F. J. B., surgeon, having been examined by a retiring board and found incapacitated for active service on account of disability incident thereto, is retired from active service, May 9, 1906, under the provisions of section 1453, Revised Statutes.

Curl, H. C., surgeon, commissioned surgeon, with rank of lieutenant commander, from Dec. 16, 1905.

Pugh, W. S., Jr., asst.-surgeon, ordered to the *Lancaster*.

Miller, James, Jr., asst.-surgeon, died at Midway Islands, May 13, 1906.

Haynes, J. R., asst.-surgeon, ordered to the Naval Hospital, Washington, D. C.

Brown, H. L., asst.-surgeon, detached from the *Texas* and ordered home to wait orders.

Manchester, J. D., asst.-surgeon, ordered to duty at the Naval Recruiting Station, Cincinnati.

Campbell, R. A., acting asst.-surgeon, detached from the Naval Recruiting Station, Cincinnati, and ordered to the Midway Islands.

Reeves, I. S. K., asst.-surgeon, ordered to the Naval Hospital, Boston.

Allen, A. H., asst.-surgeon, appointed asst.-surgeon, with rank of lieutenant (junior grade), from May 2, 1906.

Public Health and Marine-Hospital Service.

List of changes of station and duties of commissioned and non-commissioned officers of the Public Health and Marine-Hospital Service for the seven days ending May 16, 1906:

Kerr, J. W., asst.-surgeon-general, detailed to represent the Service at the meeting of the National Association for the Study and Prevention of Tuberculosis, in Washington, D. C., May 16-18, 1906.

Smith, A. C., surgeon, granted leave of absence for seven days, from May 14, 1906.

Rosenau, M. J., P. A. surgeon, granted leave of absence for two days, from May 11, 1906, under Paragraph 189 of the Regulations.

Oakley, J. H., P. A. surgeon, relieved from special temporary duty at San Francisco, Cal., and directed to rejoin his station at Port Townsend, Wash.

Grubbs, S. B., P. A. surgeon, temporarily relieved at Chicago, Ill., and directed to proceed to Cleveland, Ohio, May 31, for temporary duty.

Billings, W. C., P. A. surgeon, granted leave of absence for five days, from April 23, 1906.

Billings, W. C., P. A. surgeon, granted leave of absence for one day, May 6, 1906.

Stansfield, H. A., P. A. surgeon, relieved from duty in the Hygienic Laboratory, Washington, D. C., and directed to proceed to Baltimore, Md., reporting to the medical officer in command for duty and assignment to quarters.

Earle, B. N., P. A., surgeon, leave of absence granted for four months, from Feb. 4, 1906, amended so as to be for three months and three days only.

Ebert, H. G., asst.-surgeon, relieved from special temporary duty in San Francisco, and directed to rejoin his station at Seattle, Wash.

Salmon, T. W., asst.-surgeon, granted leave of absence for seven days, from May 10, 1906, under Paragraph 191 of the Regulations.

Guthrie, M. C., asst.-surgeon, relieved from duty at Ellis Island, N. Y., and directed to proceed to Havana, Cuba, reporting to P. A. Surgeon R. H. von Ezdorf for duty.

Delgado, J. M., acting asst.-surgeon, granted leave of absence for twenty-six days, from May 14, 1906.

Ottaway, J. E., acting asst.-surgeon, directed to proceed from Charlotte to Rochester, N. Y., for special temporary duty, on completion of which to return to Charlotte.

Schug, F. J., acting asst.-surgeon, leave of absence granted for fifteen days, from May 3, 1906, amended to be effective from June 8, 1906.

BOARDS CONVENED.

A board of medical officers was convened to meet at the Bureau in Washington, D. C., May 22, 1906, for the purpose of making physical examinations of applicants for the position of cadet in the Revenue Cutter Service. Detail for the Board: Asst.-Surgeon-General W. J. Pettus, chairman; Asst.-Surgeon-General J. M. Eager, recorder.

A board of medical officers was convened to meet at Mobile, Ala., May 17, 1906, for the purpose of conducting a physical examination of an officer of the Revenue Cutter Service. Detail for the Board: P. A. Surgeon Edward Francis, chairman; Acting Asst.-Surgeon A. S. Taylor, recorder.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague, have been reported to the Surgeon-General, Public Health and Marine-Hospital Service, during the week ended May 18, 1906:

SMALLPOX—UNITED STATES.

Florida: General, April 28-May 5, 10 cases.
Illinois: Chicago, May 5-12, 1 case.
Indiana: Terre Haute, May 5-12, 1 case.
Kentucky: Covington, May 5-12, 1 case.
Maryland: Baltimore, May 5-12, 1 case; Crisfield, May 7, 1 case.
Minnesota: General, April 23-May 7, 18 cases.
New Hampshire: Portsmouth, May 10, 1 case.
New York: Buffalo, May 5-12, 1 case; Haverstraw, May 9, 1 case; New York, May 5-12, 3 cases, 2 deaths; Roswell, April 1-30, 2 cases.
Ohio: Toledo, April 28-May 5, 1 case.
Rhode Island: Pawtucket, March 23, 4 cases.
Tennessee: Knoxville, May 5-12, 1 case.

SMALLPOX—INSULAR.

Philippine Islands: Manila, March 17-31, 2 cases, 1 death.

SMALLPOX—FOREIGN.

Africa: Cape Town, March 24-April 17, 14 cases; Freetown, April 18, present.
China: Hongkong, March 24-31, 12 cases, 11 deaths; Shanghai, April 7-14, 1 death.
Ecuador: Guayaquil, April 12-24, 5 deaths.
Gibraltar: April 22-29, 4 cases, 1 death.
Great Britain: Bristol, April 21-28, 4 cases. Glasgow, April 27-May 4, 1 case.
India: Bombay, April 10-17, 14 deaths; Calcutta, March 31-April 7, 137 deaths; Karachi, April 8-15, 21 cases, 17 deaths; Madras, April 7-13, 30 deaths; Rangoon, March 31-April 7, 61 deaths.
Italy: General, April 19-26, 38 cases.
Japan: Formosa, March 1-31, 5 cases; Yokahama, April 7-14, 2 cases.
The Netherlands: Flushing, April 21-May 5, 3 cases; Rotterdam, April 29-May 5, 1 case.
Russia: Moscow, March 31-April 21, 37 cases, 6 deaths; Odessa, April 7-21, 16 cases, 4 deaths.

YELLOW FEVER—FOREIGN.

Ecuador: Guayaquil, April 12-24, 17 deaths.

CHOLERA—INSULAR.

Philippine Islands: Manila, March 17-24, 1 case, 1 death; Provinces, March 17-23, 27 cases, 23 deaths.

CHOLERA—FOREIGN.

India: Bombay, April 10-17, 26 deaths; Calcutta, March 31-April 7, 43 deaths; Madras, March 31-April 6, 1 death.

PLAGUE—INSULAR.

Hawaii: Honolulu, May 12-16, 5 deaths.

PLAGUE—FOREIGN.

India' Bombay, April 10-17, 875 deaths; Calcutta, March 31-April 7, 301 deaths; Karachi, April 28-15, 194 cases, 162 deaths; Rangoon, March 31-April 7, 72 deaths.
Japan: Kobe, March 24-April 7, 2 cases, 1 death.

Society Proceedings

COMING MEETINGS.

AMERICAN MEDICAL ASSOCIATION, Boston, June 5-8.

Med. Soc. of State of North Carolina, Charlotte, May 29-31.
Rhode Island Medical Society, Providence, May 31.
American Dermatological Assn., Cleveland, May 30-June 1.
American Pediatric Society, Atlantic City, May 30-June 1.
American Surgical Association, Cleveland, May 30-June 1.
American Laryngological Assn., Niagara Falls, May 31-June 2.
American Assn. of Genito-Urinary Surgeons, New York, June 1-2.
American Academy of Medicine, Boston, June 2-4.
Amer. Assn. of Life Insurance Exam. Surgeon, Boston, June 4.
American Gastro-Enterological Assn., Boston, June 4.
American Urological Assn., Boston, June 4-5.
American Proctologic Society, Boston, June 5-6.
American Medico-Psychological Society, Boston, June 12-15.
Massachusetts Medical Society, Boston, June 12-13.
Maine Medical Association, Portland, June 13-15.
Minnesota State Medical Association, Minneapolis, June 20.
West Virginia State Medical Assn., Webster Springe, June 20-22.
Medical Society of New Jersey, Atlantic City, June 19-21.
State Medical Society of Wisconsin, Milwaukee, June 27-29.
American Ophthalmological Society, New York City, June 28-29.

ARKANSAS MEDICAL SOCIETY.

Annual Meeting, held at Hot Springs, May 8-10, 1906.

This meeting of the Arkansas Medical Society was the best in the history of its organization, the registration being the largest ever recorded.

The special feature of Wednesday was a popular lecture, given by Dr. Joseph M. Mathews, Louisville, Ky., at the Auditorium.

Secretary's Report.

The report of the secretary showed the organization of three new county societies and one district society, leaving a total of nine counties and three districts in the state as yet unorganized.

Important Business Transacted.

STATE JOURNAL TO BE ISSUED.

It was decided to change the monthly bulletin into a monthly journal and to discontinue the publication of the annual volume of proceedings. The proceedings will be published in the new journal instead.

INSURANCE FEES.

The matter of regulating insurance examination fees was referred by the house of delegates to the various county societies to act on as they might see proper.

ENDORSEMENT OF COUNCIL ON PHARMACY AND CHEMISTRY.

In accordance with the report of a special committee, a resolution endorsing the Council on Pharmacy and Chemistry of the American Medical Association was unanimously adopted.

COMMITTEES APPOINTED.

A committee was appointed to report at the next annual meeting on the feasibility of forming a liability insurance organization within the state society. A committee was also appointed to report on the propriety and advisability of the society, by joint stock company or otherwise, erecting and maintaining a medical building for the state and county societies.

NEW SECTIONS CREATED.

A resolution was passed creating the following sections: Dermatology and syphilology, pathology, state and public hygiene, diseases of children, and ophthalmology, laryngology and otology.

Papers Read.

The following are some of the principal papers presented: "Uncinariasis," Dr. Morgan Smith, Little Rock. The author recommended especially the administration of menthol. In a paper on "Ophthalmia Neonatorum," R. H. T. Mann, Texarkana, embodied a plea for a law compelling midwives and others to report cases to competent physicians or health authorities. B. G. Wood reported an epidemic of influenza complicated with colitis. Large pieces of mucous membrane were discharged from the bowel, death following in a few hours after the complication manifested itself. H. Moulton, Fort Smith, read a paper on "Mastoid Operation." In the discussion the contention was made that the mastoid operation could be done by the general practitioner as well as by the specialist. It was clearly shown, however, that this operation should not be undertaken by any one not properly qualified. In a paper on ectopic gestation Dr. Preston Hunt, Texarkana, advised operation in the earlier months of pregnancy on account of greater safety. In a paper by J. W. Price on "Injuries to the Eyeball" and the discussion that followed, the advisability of not enucleating if there is vision and hope of saving the eye was urged.

In a paper on "Some Advantages of the Sigmoidoscope Over the Ordinary Proctoscope" Dr. W. V. Laws, Hot Springs, stated that the advantages of the sigmoidoscope are the comparative ease and freedom from danger in making examinations and the exposure of the lumen of the gut for examination.

DR. C. C. STEPHENSON, Little Rock, read a paper on "Anthrax of the Postnasal Space" in which he reported an interesting case, and exhibited exfoliated pieces of the turbinal bodies. The diagnosis in this case was repeatedly confirmed by microscopic examinations.

In a paper on "Surgical Treatment of Gastric Ulcer," Dr. J. P. Runyan, Little Rock, contended that the chances for recovery from this affection are much better when the patient is operated on.

Other papers read were: "Congestion of Brain in Infancy," W. T. Whaley; "Hemoglobinuria," R. N. Smith, Collins; "Malarial Hematuria," J. W. Cook, Mineral Springs; "New Phases in Treatment of Pneumonia," C. M. Lutterloh, Jonesboro; "A Case of Ainhum," O. M. Bourland, Van Buren; "Treatment of Diseased Conditions of Kidneys," R. L. Saxon, Holly Grove; "A Case of Disorganized Wrist Joint Following a

Case of Septic Fever," C. E. Davis, Eureka Springs; "Smallpox and Its Management," O. G. Blackwell, Pine Bluff; "The Race Question from a Medical Standpoint," H. Thibault, Scott; "Tuberculosis," G. E. Penn, Marvell; "Modern Views of Neurasthenia and Its Treatment," John Punton, Kansas City; "Rational Treatment of Vaginismus," J. R. Dale, Chicago; "Presentation of Shoulder," E. H. Winkler, De Witt; "Cases of Version," M. G. Thompson, Hot Springs; "Hemorrhage from the Uterus During Gestation and Its Effect on the Mother," J. T. Clegg, Siloam Springs; "Toxemias of Pregnancy, with Report of Some Acute Cases," H. C. Dunnavant, Osceola; "Placenta Prævia," J. W. Meek, Camden; "Complete Perineal Laceration," J. P. Runyan, Little Rock; "Inflammatory Conditions of the Female Organs of Generation as Met and Treated by a General Practitioner," N. S. Wood, Camden; "Carcinoma Uteri," C. R. Shinault, Little Rock; "The Pathology of Carcinoma of the Uterus," Nettie Klein, Texarkana; "Some Interesting Cases in Minor Surgery," E. K. Williams, Arkadelphia; "Gunshot Wound of Kidney and Liver, with Report of Case," Marion King, Texarkana; "Some Observations on the Use of Formaldehyd in Treating Carcinoma," Leonidas Kirby, Harrison; "Vaginal Hysterectomy," J. R. Dale, Texarkana.

In addition to these papers there were a number of interesting case reports.

Election of Officers.

The following officers were elected for the ensuing year: President, C. Travis Drennen, Hot Springs; vice-presidents, St. Cloud Cooper, Fort Smith; J. J. Morrow, Cotter, and L. J. Gillespie, Hope; secretary, C. C. Stephenson, Little Rock; treasurer, J. W. Scales, Pine Bluff.

The office of secretary was put on a salaried basis of $600 a year.

On invitation of the board of trade of Little Rock, the Society decided to hold its next meeting in that city.

A committee of five was ordered appointed by the newly elected president to confer with similar committees looking to the organization of the Southwestern Medical Association, to be composed of the states of Missouri, Arkansas, Texas, Kansas, and Indian Territory and Oklahoma.

ASSOCIATION OF AMERICAN PHYSICIANS.

Twenty-first Annual Meeting Held at Washington, D. C., May 15-16, 1906.

President's Address.

DR. FRANK BILLINGS, Chicago, spoke particularly of the program for the meeting. A possible criticism is that it is too long, but it was felt that to refuse any of the papers offered would be exercising undue discrimination. Hence, all were given a place, with the request that each reader present only an oral abstract, instead of reading the entire paper. It is intended that hereafter no paper shall be read in full. Two symposia are included and Dr. Billings hopes to see them continued in future programs. During the past year the Association lost by death two members—Dr. D. D. Stewart and Dr. J. M. Ely. Dr. Billings read a cablegram conveying best wishes from Dr. Osler.

Under the head of general business of the society, Dr. Billings appointed a committee of nine members for the purpose of aiding in the formation of a new library for the physicians of San Francisco.

Mechanism of the Blood Pressure Changes in Mitral Insufficiency.

DR. W. G. MACCALLUM, Baltimore, studied a series of cases of experimental mitral insufficiency for the special purpose of determining the cause of hypertrophy of the right ventricle. He regards the findings as applicable to the spontaneous lesion as found in human beings. Increase of work in this lesion will not entirely explain the right ventricle changes. The essential features in mitral insufficiency are that the left ventricle is rendered practically useless and the blood regurgitates into the pulmonary system. A lessened amount of blood reaches the right ventricle and the lung. There is thus a smaller amount of blood in the circulation and more stagnant in the auricles. A series of charts obtained by his experiments showed that when mitral insufficiency was produced there was in most instances a fall of arterial pressure in the aorta, but the pulmonary pressure was hardly changed. However, there were alterations in the pulmonary circulation consisting mainly of a reflex wave from the left auricle. This affected to a certain extent the pressure in the pulmonary artery through the capillaries in the lung and affected the right ventricle before the closure of the pulmonary valve, as shown by the insertion of extra canulas. This will account for hypertrophy of the ventricle, although the old contention that there is no obstacle to the outflow of blood from the right ventricle, is not true, as that chamber has to pump blood into over-filled lungs.

Experiments of Venous Blood Pressure and Its Relation to Arterial Pressure.

DR. HENRY SEWALL, Denver, detailed experiments in which the venous pressure was determined by a specially devised instrument. The venous system is naturally divided into two departments, the somatic or superficial, and the splanchnic or central. The veins of the first are subject to various external stimuli and may be used for deducing conclusions as to the state of the circulation in all other parts of the body. The splanchnic circulation, from its importance, must be considered in every estimate of arterial pressure. The physiology of the depressor nerve, as applied to clinical conditions, is of the utmost importance. In heart lesions the beneficial action of rest is due to the fact that this permits recovery from the hyperirritability of the nerve. Blood pressure in the superficial veins depends on the ratio of in-put to outflow. The former is increased by muscular exercise and by heat; the latter is decreased by cold and by obstruction of the passage of blood into the heart. In some individuals venous pressure falls, in others it rises during digestion. Respiratory movements are fundamentally active in aiding transfer of blood from arteries to veins. Pressure in the peripheral veins increases during deep inspiration. It can be shown that both cardiac and respiratory variations of arterial blood pressure are frequently transmitted through the capillaries and hence are shown by the veins. The characteristically high venous pressure in gout and in lithemia is particularly significant. In arteriosclerosis and arterial spasm the venous pressure is low, but rises when the cardiac circulation is impaired.

Rupture of Thoracic Aneurism Into the Superior Vena Cava.

DR. M. HOWARD FUSSELL, Philadelphia, related the clinical history of a man perfectly well until three days before he saw him. There was dyspnea and the upper part of the thorax and the arms were intensely cyanosed and edematous. Dullness over the upper part of the sternum finally developed and over it was a systolic murmur, which later became a to-and-fro murmur. There was no tracheal tug and no difference in the pulses nor in the pupils. The man died from exhaustion 41 days after onset of symptoms. Autopsy showed 5 cm. above the aortic valve a dilatation of the aorta 3 cm. in diameter, the upper part involving the beginning of the innominate. This was free from clot, but between the aorta and the vena cava was an adventitious sac filled by clot. From this sac there was a round opening into the vena cava, permitting the passage of a match stick. In most of the cases which have been reported the aneurism was large, and in at least 50 per cent. of them there was a loud, singing continuous murmur; this sign was absent here.

DISCUSSION.

DR. WILLIAMS for DR. CHARLES CARY, Buffalo, reported a case of varicose aneurism of the aorta and superior cava, in which the symptoms were very much like those in Dr. Fussell's case. The patient, a large man, was suddenly seized with pain while lifting. Cyanosis became striking, the color being a blue-black. The diagnosis was aneurism of the aorta compressing the cava and possibly with rupture into the cava. Death occurred on the fifth day and autopsy showed aneurism of the aorta the size of a fist, beginning one inch above the valve. The vena cava was occluded for a distance of two inches, beginning two inches above the auricle. The opening from the sac into the cava transmitted a No. 10 catheter.

DR. JOHN H. MUSSER, Philadelphia, mentioned a case of

aortic aneurism that pressed on the esophagus and the left bronchus, producing bronchoesophageal fistula. The patient, a woman, presented signs of aneurism and of esophageal pressure. Bronchopneumonia developed and she died suddenly from insufflation of blood.

DR. J. P. CROZER GRIFFITH, Philadelphia, presented the specimen of aortic aneurism ruptured into the vena cava that he reported to the society some years ago. The patient, a Chinaman, had shown all the signs described by Dr. Fussell.

DR. FUSSELL said that the Roentgen rays were used in his case, but were negative, because of the small aneurism immediately beneath the sternum.

Experimental Study of Cardiac Murmurs.

DRS. W. S. THAYER and W. G. MACCALLUM, Baltimore, reported a study of the heart sounds and of murmurs by direct auscultation of the exposed dog's heart. The heart was exposed by removing a portion of the chest wall, auscultation being performed by means of a stethoscope with a very narrow and long bell. The sounds of the normal dog's heart are the same as those of the human organ: from the nearness of the stethoscope a very much better idea could be gained of the superior strength of the aortic second sound. A striking point in the work was the ease with which a systolic murmur in the pulmonary artery could be produced by slight pressure on the conus arteriosus. This suggests that in man a soft systolic murmur may be produced by the resistance to the conus of the chest wall. A number of each of the various murmurs were produced by causing lesions analogous to those causing such sounds in human beings and in general these corresponded very closely. In mitral insufficiency murmurs were heard over the ventricle, the same as in human subjects, but in the dog the murmur and thrill were most intense in the left auricle, which is theoretically correct. In the dog, however, as in human subjects, this is transmitted through the chest wall as a soft murmur. This experiment illustrated the value of this feature to students if it were demonstrated to classes, showing the need of accurate anatomic knowledge.

DISCUSSION.

DR. W. G. MCCALLUM, Baltimore, described the technic of the experiments and showed instruments with which the lesions were produced. The series was a part of the attempt to teach experimental medicine and pathology to the students at Johns Hopkins, this being now made possible by the recent completion of a building for that purpose.

DR. T. W. JANEWAY, New York, said that on forced expiration there was not only a soft systolic pulmonary murmur, but also a harsh murmur and a thrill; the pulmonary valve can also be felt to close. These are apt to be thought indications of organic disease. He has attributed them to pressure by the expiratory effort or by a long auricular appendix overlapping the pulmonary artery and reaching the aorta.

DR. HENRY SEWALL, Denver, said regarding the murmur after infusion of salt solution, that it is generally understood salt infusions cause an increase of venous pressure first. The murmur suggests a relative insufficiency due to increased intra-cardiac blood pressure. He asked if Dr. Thayer paid any attention to the contraction of the papillary muscles. He believes that the first sound of the gallop rhythm is due to the difference in time of this contraction, as compared to the heart wall.

DR. L. F. BARKER, Baltimore, said that the work of Drs. Thayer and MacCallum represents a development in experimental pathologic physiology that is particularly pleasing. This is the kind to which Cohnheim and Bernard were partial. It will help the clinician much more than will pathologic anatomy. He earnestly hopes that more of this kind of work will be done.

DR. S. J. MELTZER, New York, suggested that if the experimenters had listened through the lung when not interfered with by artificial respiration, a better understanding of cardiorespiratory murmurs would have been obtained.

DR. THAYER said that he had not observed the contraction of the papillary muscles. The cardiorespiratory murmurs form an important subject that will have to be taken up especially in other investigations.

Intravenous Injections of Nicotine in Experimental Arteriosclerosis.

DRS. I. ADLER and O. HENSEL, New York, said that Josue's negative results from the use of nicotin were probably due to the fact that he used too small doses. They employed 0.015 gm. of pure nicotin in a 1 to 200 solution for each dose. Each time a rabbit was injected it had a violent convulsion. Tolerance was not produced even after 100 doses. The convulsions did not appear to affect the general health of the animals and were entirely over it in a few minutes. The injections were made every day or with intervals of two days occasionally. Some animals were immune to the action of the nicotin, while others were very susceptible. Most of them after from 18 to 25 doses showed characteristic lesions in the aorta, as after the administration of adrenalin. The very earliest effect is on the muscle cells of the media, the external or longitudinal layers rarely being affected. In some aortas showing no gross lesion, staining showed distinct changes as chromatolysis and karyolysis. Finally lime salts were deposited. One type of the lesion is quite diffuse, large parts being destroyed and leading to aneurismal dilatations. In another form, the degeneration is localized, assuming the appearance of atheroma. Experiments are now under way to determine whether these lesions are toxic, hypertensive or of other nature. Special points are: 1. The primary and essential factor is destruction of the muscle cells. 2. The elastica, contrary to the general belief, plays an entirely passive rôle. It remains normal just so long as the muscle remains normal and the later changes are entirely mechanical, degenerative changes being lacking. 3. It is frequently said of late that these changes in animals are not analogous to human arteriosclerosis, though human sclerosis, it is believed, is primarily a degeneration in the depths of the vessel wall. The reason there is no fatty degeneration in the rabbit is probably that in such animals calcareous are much more common than fatty changes.

Clinical Observations on Arteriosclerosis from Alimentary Toxins.

DR. C. S. BOND, Richmond, Ind., reported the result of twenty years' study of private patients, 150 cases being observed. Cases due to senility, alcohol, or syphilis were excluded. A great deal of work examining the stomach contents and the feces confirmed the clinical diagnosis. The diagnosis was also based largely on the urea output in each 24 hours.

DISCUSSION.

DR. J. L. MILLER, Chicago, said that very interesting work on vascular lesions had been done by an Italian observer who gave tobacco to rabbits by the mouth and obtained lesions similar to those described by Dr. Adler. The evidence produced during the past year is in favor of toxins rather than pressure as the cause of these changes. In his work with barium chlorid the changes were not confined to the media, but changes in the elastica and in the intima apparently were first.

DR. JOSEPH COLLINS, New York, said that the lesions produced by nicotin do not explain the initial step in the pathogenesis of the condition. Dr. Brooks and he are carrying out experiments which bring them a step nearer the solution. They are producing lesions by the inhalation of nicotin, rabbits being kept in chambers where smoking tobacco is being burned. No convulsions are produced in this way, nor is there initial rise in blood pressure. If this produces arteriosclerosis without the necrotic changes induced by increased blood pressure then the first change is nearer approached. The best explanation of the condition now is that it is due to hypertonus, and this may be caused by toxins, increased pressure or in other ways.

DR. H. A. HARE, Philadelphia, said that there is danger in criticising experiments and asked Dr. Adler the following questions: 1. Is there any relation between the frequency of the convulsions and the extent of the changes in the vessels? 2. Were the convulsions controlled by drugs? 3. Did he try antipyrin, which also causes convulsions in animals? Many controls are necessary in such experiments, as there are different changes in the tissues of animals in captivity without the interference of artificial causes.

DR. ADLER, in closing, said that he had some years ago reported a series of experiments in which he fed tobacco to rabbits; it produced no effect on the larger blood vessels. There were some interesting changes in the liver, heart and smaller vessels of the kidney and also of the liver. He had not set out to study the causes of arteriosclerosis in general. All the studies on human arteriosclerosis thus far are purely histologic and made in advanced stages of the disease. This accounts for the small amount of headway made in the study of the affection. The early stages in human beings are absolutely unknown. An interesting point in this connection is that the rabbits, which were immune to the action of nicotin, so far as vascular lesions were concerned, never failed to have a convulsion when given the injection.

Tricuspid Insufficiency in the Course of Pernicious Anemia.

DR. ROBERT B. PREBLE, Chicago, said that in a typical case of pernicious anemia he observed pulsation in the jugular vein, but with none of the ordinary associated phenomena. There was no cyanosis, nor edema, nor passive congestion of the liver. In a second case, in a woman, seen when in coma, there was also a positive pulse in the jugular and in the small veins of the thorax and arms. As in the first case, the other signs named were lacking. Leube has reported finding similar conditions in cases of chlorosis. A third case showed essentially the same features. It seems possible that there may be such a lesion without seriously interfering with the circulation. Jugular pulse is possible under other conditions, as the rupture of an aneurism into the superior vena cava, or with an open foramen ovale with other added disturbance, but each of these could be ruled out of the cases reported. This venous condition in pernicious anemia is probably more common than is noted, or at least described.

Typhoid Spine with Deposits of Bone Along the Vertebrae in Relation to Spondylitis.

DR. THOMAS MCCRAE, Baltimore, reported a case of typhoid fever with the usual clinical history of typhoid spine. Later relapse occurred and during this attack the spine symptoms improved and the patient was discharged well. Definite bony changes in the second and third lumbar vertebræ were shown by the Roentgen rays. In a second patient the same symptoms and lesions as shown by the Roentgen rays appeared on the thirty-seventh day. This was a case of paratyphoid fever and may have been influenced by a previous gonococcus infection. There were no further explanation of the symptoms in these patients. One point is the explanation of the neurotic features. Spondylitis is seen in other conditions and is also accompanied by similar nervous conditions. The lesion is believed to be due to the local action of the typhoid bacillus. In the spondylitis of arthritis deformans there are all grades of lesions and so in typhoid spine. These cases of typhoid spine are thus of interest in connection with the cause of arthritis deformans, the lesions in the two being the same except in degree. This suggests the theory that arthritis deformans may be due to infection by different micro-organisms.

DISCUSSION.

DR. JAMES B. HERRICK, Chicago, said that he was glad to see Dr. McCrae rescue typhoid spine from the list of functional diseases. He has seen two cases of the condition. In one no organic lesion was made out; in the other pain was localized over a distinct swelling. When the swelling subsided the pain also ceased. The lesion is thus a definite organic and inflammatory process.

DR. W. S. THAYER, Baltimore, said that one reason inducing physicians to believe typhoid spine a pure neurosis is the curiously indefinite character of the pain in some cases. The symptoms in secondary carcinoma of the spine with similar manifestations are also indefinite. He believes that there is a definite local lesion of the spine in all cases of typhoid spondylitis.

DR. JOSEPH COLLINS, New York, considers that the relations of gonorrheal spondylitis are confirmatory of McCrae's theory. A patient of the type described by Marie had a stiff spine for three years. From opening and draining of the seminal vesicles the patient is now greatly improved and recovery seems assured. It is a mistake to call all cases of typhoid spine organic, because some patients recover. If there be exudate and lesion of the bone they would not recover, though in some cases recovery does occur when there seems no doubt of the presence of periostitis.

DR. VICKERY, Boston, mentioned a case of typhoid spine in which the lesion was so high up that pleurisy or intercostal neuralgia was suspected. Finally a definite lesion of the dorsal spine was demonstrated by the Roentgen rays. Rest was at once instituted and the usual nervous symptoms did not develop.

DR. JAMES TYSON, Philadelphia, described a case of nuchal spondylitis of two years' duration. There were first the ordinary symptoms of wry neck, followed by a peculiar distortion of the neck, due to the spondylitis. This is the first he has seen in this location; the osseous changes appear due to the wry neck. He believes that all cases of spondylitis should be put in the category of infections.

DR. J. K. MITCHELL, Philadelphia, said that a very small lesion in the neighborhood of the spine may cause marked symptoms. In one case of three years' duration with agonizing pain in one side of the back, thus excluding spondylitis, the patient was operated on. This showed that the lesion was the tearing off of a fragment one-fourth by one-third inch in size from the lateral process of a vertebra in the lower thoracic region. The operation was followed by perfect comfort.

DR. S. SOLIS COHEN, Philadelphia, believes that the question of pain is a very important one and that something more than spondylitis causes the intense pain often complained of. In some forms there are lesions of considerable extent and yet no pain whatever.

DR. MCCRAE stated that he did not say that all typhoid spines are organic. In arthritis deformans the lesions sometimes clear up and so do they in typhoid spine. The Roentgen rays showed what was taken to be new bone formation in the cases he reported. There appears to be no association between the degree of pain and the extent of the lesion.

(To be continued.)

Therapeutics

[It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns.]

Ocular Complications in Measles.

In considering the ocular complications which may arise in the course of measles, Aaron Brav, in the *Medico-Chirurgical Journal*, states that every such patient with conjunctivitis requires treatment in order to avoid corneal complications and resulting damage to the eyesight. Therefore, when the physician is called to see a case of measles, he should instruct the parents regarding the necessity of absolute cleanliness, as the percentage of corneal opacities resulting from inflammatory conditions complicating this apparently mild disease of childhood is considerable. The child's hands should be thoroughly washed three or four times daily with warm soapy water, as he is liable to rub the eyes with the hands and not only increase the irritation, but transmit the infection. The face should also be kept clean. The child should be kept in a large, well-ventilated room, with uniform temperature and light covering. He should remain in bed for at least two weeks, during which time the toxins are eliminated. The room should be kept shaded, and no direct light should be permitted to fall on the eyes. Brav speaks against the practice of completely darkening the room, as light is essential in such illnesses. Full light should be permitted only after the eyes have become normal in appearance and conjunctival inflammation has entirely subsided. In carrying out these instructions, one guards against the irritation of the cornea and lessens the tendency to photophobia. Brav also recommends that an eye wash be prescribed in all cases of measles. The

physician should be specific in his instructions concerning this eye wash rather than prescribing the ordinary borax solution, in order that the necessary instructions will be more accurately carried out by the patient's nurses. An ordinary rag or cloth should not be used; the eye cup in older children is permissible, and in younger children the eye dropper should be used. The eye should be washed three times a day. As an antiseptic and as a soothing lotion, Brav recommends the following combination:

R.	Acidi borici		
	Sodii biboratis, āā.....gr. x		6
	Aquæ menthæ piperitæ .....ʒss	2	
	Aquæ camphoræ .....ʒss	15	
	Aquæ destillatæ, q. s. ad.....ʒxvi	500	

M. Sig.: To be instilled into the eyes three times a day.

The itching of the eyelids should be relieved by the following ointment:

R.	Hydrargyri oxidi flavi .....gr. ¼		015
	Lanolini .....ʒi	4	

M. fiat unguentum. Sig.: A small amount to be applied to the conjunctivæ at bedtime, followed by gentle massage over the eyelids.

The foregoing ointment will allay the itching and prevent blepharitis and the glueing of the lids when the patient awakens in the morning.

This author states that irritating drugs, such as silver nitrate, should not be used. When the congestion of the conjunctiva is very marked, one drop of the 1 to 4,000 solution of adrenal extract may be instilled into the eye three times a day. If the lids show the presence of marked edema, warm moist compresses are of great value.

When intense photophobia is present, the instillation of a few drops of a cocain solution will afford relief. If this condition should persist, the physician should always be on the lookout for some corneal involvement, and if present, a 1 per cent. solution of atropin should be instilled.

If general catarrhal symptoms, such as rhinitis, be present, the nose should receive a daily spray of boric-acid solution, as this greatly assists in the prevention of any inflammation and of any obstruction to the lachrymal sac. Children who have recently recovered from attacks of measles should not be allowed to read or to write until the system is entirely rid of toxic substances, and has entirely recovered from the influence of the toxic conditions. Such debility not infrequently affects the ocular muscles, both intrinsic and extrinsic, and produces a great deal of strain. Consequently, during convalescence extreme care should be observed, as it is mainly in this stage of the disease that the majority of the ills and complications arise. The general condition of the child must be improved. If there are any tendencies to strumous diathesis, tuberculous, scrofulous, syphilitic or rachitic, they must be combated, for in such cases the vitality is low and the resistance to corneal complications is lessened. During the cold season, the author recommends cod-liver oil during the stage of convalescence and continued throughout the entire season. When the oil can not be taken, the following combination is recommended as an alterative and as a tonic:

R.	Syrupi ferri iodidi ..... m. v.		30
	Liquoris potassi arsenitis.....m. ii		12
	Syrupi hypophosphiti .....ʒss	2	
	Syrupi simplicis .....ʒi	4	

M. Fiat mistura. Sig.: The entire amount to be given at one dose and similar amounts given three or four times daily.

Bathing during the stage of convalescence must not be neglected. A warm bath should be given daily, as it not only facilitates desquamation and prevents the dissemination of the scales, but greatly assists in the elimination of toxins which not infrequently contribute to the development of the anemia and general debility.

Tuberculosis of the Larynx.

The treatment of tuberculous conditions of the larynx and epiglottis, according to the *Medical Bulletin*, should be largely systemic in the milder forms of the disease. It should be borne in mind that the disease does great harm only when it causes pain or prevents the taking of food, and in some cases large ulcers may heal with practically no local treatment. The method of curetting in order to eradicate the local disease is regarded as worse than useless, as it is impossible to know how deeply the bacilli have penetrated the apparently sound tissue in the vicinity of the superficial lesion. Ulcers should be cleansed with the following combination:

R.	Hydrogenii peroxidi		
	*Liquoris sodii boratis comp. (N. F.), āā..ʒi		30

M. Sig.: To be introduced into the larynx by means of a spray from the atomizer.

After the parts have been thoroughly cleansed, the ulceration should be dusted by means of a powder, as follows:

R.	Bismuthi subnitratis .....ʒii	8	
	Pulv. acaciæ .....gr. xv	1	
	Iodoformi .....ʒss	2	
	Morphinæ sulphatis .....gr. xx	1	30
	Acidi tannici.....gr. xxx	2	

M. Sig.: To be insufflated directly into the larynx by means of a powder blower.

If for any reason the morphin in the foregoing combination is objectionable, it may be omitted from the powder; and in any case, morphin must be prescribed with caution.

In order to relieve the excessive pain produced by swallowing, the use of cocain applied to the larynx either with an atomizer or a laryngeal applicator is recommended, but it must also be used with caution, in order to avoid the creation of a habit.

Acute Prostatitis.

In cases of acute prostatitis, the Cyclopedia of Med. and Surgery states that the outline of treatment should include absolute rest and a position that will favor emptying the part of blood as completely as possible. Consequently, the patient should be put to bed with the hips elevated. Hot sitz baths or hot applications to the perineum lessen the pain. If vesical irritation is present, the administration of the following combination is recommended:

R.	Acidi borici		
	Sodii bromidi, āā.....ʒii	8	
	Tinct. belladonnæ .....ʒss	2	
	Potassii citratis .....ʒiiss	10	
	Aquæ dest. q. s. ad.....ʒviii	240	

M. Sig.: One tablespoonful every three hours in water.

If marked temperature is present the following combination may be substituted:

R.	Acidi borici		
	Potassii, bromidi, āā.....ʒi	4	
	Potassii citratis .....ʒii	8	
	Tinct. aconiti .....m. xxv	1	65
	Tinct. belladonnæ .....ʒss	2	
	Spts. etheris nitrosi.....ʒss	15	
	Aquæ q. s. ad.....ʒvi	180	

M. Sig.: One tablespoonful every three hours in water.

When the pain is severe, a suppository may be used as follows:

R.	Ext. belladonnæ.....gr. iii		20
	Ext. opii aqueous .....gr. vi		40
	Olei theobromæ q. s.		

M. fiat suppos. no. xii. Sig.: One suppository to be introduced into the rectum two or three times a day, according to the severity of the pain.

Medicolegal

Sufficiency of Hypothetical Questions.

The appellate term of the Supreme Court of New York says that where the ground of the defendant's exceptions in the personal injury case of Coles vs. Interurban Street Railway Co. was that the questions put to the expert witnesses did not fairly and fully state all of the facts proved in the case the contention seems unsound in law. It is sufficient if a hypothetical question is within the possible or probable range of the evidence, without being based on all of the evidence given or on a judicial summing up of the fair effect of that evidence.

No Forgery of Invalid Prescription.

The Supreme Court of Vermont says that the defendant in the case of State vs. McManus was charged with committing

* Dobell's Solution.

the crime of forgery by altering a physician's prescription for whisky. The prescription in question, however, contained no statement that the liquor prescribed was necessary for medicinal use. It therein failed to comply with the statute in a very essential particular. The paper was invalid on its face, and could not be relied on as authority for a sale. This has been held in respect to similar provisions in other states. State vs. Tetrick, 34 W. Va. 137; State vs. Nixdorf, 46 Mo. App. 494. And it has been long and uniformly held that a paper that is invalid on its face will not sustain a charge of forgery at common law. The writing must be such that, if genuine, it would be apparently of some legal efficacy. It is not to be presumed that any one could be deceived or defrauded by a document that is void on its face.

Hospital Record as Evidence of Pain and Suffering.

The Superior Court of Delaware says that in the personal injury case of McMahon vs. Bangs the head nurse of the hospital to which the plaintiff had been taken was produced by him as a witness, and after testifying as to his condition when taken to the hospital, was questioned concerning a certain record of the case, which she testified was regularly kept by one of the nurses of said hospital, who had since been dismissed and was not present in court. Said record was thereupon offered in evidence and was objected to by counsel for the defendant on the ground that the only person who could testify to said record, so as to make it proper evidence, would be the person who made it. The object of offering this paper in evidence, the court says, seemed to be to show pain and suffering. For that purpose the nurses themselves might be called, and under proper circumstances this paper could be used to refresh their memories. Beyond that the court thinks it was not admissible.

Physician Entitled to Recover for Services.

The appellate term of the Supreme Court of New York says, in the case of Denenholz vs. Kelly and another, that a boy in the defendants' employ had his hand crushed and severely injured. The defendants employed the plaintiff, a physician, to care for him. No agreement was at first made about compensation, but after a time the defendants wished to limit their probable liability, and agreed to pay the plaintiff $175 for his services in the case, and $20, the fee of a consultant. They paid only $100, and this action was for the balance. The defendants said that after the plaintiff's bill had run up to $100 the question of agreeing on a sum was broached, and that $175 was agreed on after the plaintiff had said that the treatment might still continue "six, seven, or eight weeks—quite indefinite," while they claimed that the treatment did not continue so long as they had been led to believe it would. But the court says that the statement attributed to the plaintiff, of course, was not a representation that the case would take any definite time, but merely the expression of an opinion. In point of fact the treatment did continue for some weeks thereafter. On the case the plaintiff was clearly entitled to the sum sued for.

Distinction Between "Expert" and "Opinion" Evidence.

The Supreme Court of Wisconsin holds, in Schwantes vs. State, that the scope of opinion evidence is not limited by the technical meaning of the term "science, art or skill." It says that the quoted expression, often found in decisions, in a view that might be taken thereof, conveys rather too narrow an idea of the scope of opinion evidence. It may have no appreciable connection whatever with "science, art or skill," in a technical sense, and yet be admissible just as clearly as if it possessed such connection. All opinion evidence is not expert evidence in the technical sense, but all expert evidence is opinion evidence in any view of the matter, and all admissible opinion evidence is expert evidence in the general—the legal—sense of the term. The term "skill," as used in the quoted expression, must be regarded in its broadest signification, not applied, necessarily only to mechanical or professional knowledge. It includes every subject susceptible of special and peculiar knowledge derived from experience. The term "science, art or skill" as a limitation of expert evidence is more of a lexiconic than judicial origin. Webster defines the noun "expert" as, "One who has skill, experience, or peculiar knowledge on certain subjects of inquiry in science, art, trade or the like; a scientific or professional witness." That, strictly construed, is hardly a safe guide. The law writers define the term as "a person having special knowledge and skill in the particular calling to which the inquiry relates." The preliminary questions respecting opinion evidence, that is, that of the competency of the witness and that of whether the subject is within the scope of opinion evidence, are in the field of competency, in which the judgment of the trial court is conclusive, unless shown to be clearly wrong.

Insane Asylum Not Liable for Acts of Inmates.

The Court of Appeals of Kentucky says that the case of Leavell vs. Western Kentucky Asylum for the Insane was brought to recover damages for an injury to the hand of the plaintiff caused while an employé in the defendant's laundry, it was alleged, by a lunatic allowed to work there, wrongfully starting a machine. Thus the question presented was: Can the defendant asylum be held responsible for a tort committed by a lunatic of whom it has custody? In the court's view of the law the question must be answered in the negative. The defendant, the court says, is purely an eleemosynary institution created by the state and maintained at its expense for the beneficent purpose of caring for such of its citizens as may by judgment of a court of competent jurisdiction be declared of unsound mind, and, by reason thereof, disqualified for the duties of citizenship and of caring for themselves. Such institutions are mere instrumentalities of the state government brought into being to aid in the performance of governmental duty, hence the rule of respondeat superior (the superior must answer) does not apply to them. The defendant cannot therefore be made to respond in damages for a personal injury inflicted on another by its servant, or a lunatic in its charge, though such injury results from negligence or malicious act on the part of such servant or lunatic. Nor does the court think the contention sound that because the statute from which the defendant derives its corporate life and powers declares that it may sue and be sued that places it on the footing of all other corporations with respect to torts committed by those in its care or employ. There are, it says, many causes of action for which the defendant may sue, and also grounds on which it may properly be sued. It may, through its officers, make contracts for supplies for its inmates, incur liabilities on that account, and for the proper maintenance of the institution it may sue for debts due it, or to enforce any right allowed by law. It may incur liability in damages for creating and maintaining public nuisances which endanger human life, or destroy or injure the land of another, and be sued to enforce such liability. The court is of the opinion, therefore, that the right given the defendant by statute to sue, and to others to sue it, is to be taken in a qualified sense, and should not be so construed or extended as to make it responsible to persons injured, as was the plaintiff, by reason of the misconduct or negligence of its inmates of employés. Whether the policy of thus exempting eleemosynary institutions from liability in such cases be wise, or unwise, it is undoubtedly sanctioned by a long line of authorities, and the attention of this court has been called to no case in which a contrary rule has been announced.

Current Medical Literature

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

Medical Record, New York.

May 12.

1 Review of Etiology of Acute Rheumatism. L. F. Frissell, New York.
2 *Cerebellar Apoplexy. M. A. Starr, New York.
3 The State and Tuberculosis Sanatoria. M. P. Burnham, Ray Brook, N. Y.
4 Atrophic Cirrhosis of the Liver. W. L. Wasson, Waterbury, Vt.
5 *Concerning the Diagnosis. J. N. Study, Cambridge City, Ind.

2. **Cerebellar Apoplexy.**—Starr declares that the existence of cerebellar apoplexy is not generally recognized. He cites the histories of five cases which present the common symptoms of an extreme degree of vertigo at the onset, which gradually

subsides to some extent, but which recurs on any attempt to walk and which also remains as a permanent symptom; an uncertainty in gait, which is due not to paralysis, but to a lack of balancing power, which results in staggering and uneven steps. There is also an unnatural posture of the head when at rest, and nystagmus. When in combination these symptoms are characteristic of cerebellar disease. The vomiting and headache observed in all the cases are doubtless due to irritation of the vasomotor and pneumogastric centers in the floor of the fourth ventricle, which lies immediately below the cerebellum.

5. **Concerning the Diagnosis.**—Study declares that it is unwise to declare that an individual is suffering from some disease simply because the specific bacillus is found in the body; that the presence of the Widal or diazo tests indicate typhoid fever, or that the tuberculin test indicates tuberculosis. These helpful methods of diagnosis he believes to be somewhat limited in value, and too much dependence should not be placed on them as a class unless they are accompanied by the clinical phenomena which are characteristic of the disease. The microscopic examination of diseased structures, secretions and excretions will often clear up a doubtful diagnosis. The physician who would serve his patient best must use all methods for correctly interpreting disease and other abnormal conditions of the body, not relying on any one procedure to the exclusion of others which have been proved to be meritorious.

New York Medical Journal.

May 12.

6 *Effects of Uric Acid on the Genitourinary Tract. W. H. Porter, New York.
7 The Mechanics of Injuries to the Cranium and Its Contents. H. T. Nelson, Charlottesville, Va.
8 Clinical Manifestations of the Toxemia of Pregnancy. (Concluded.) J. C. Edgar, New York.
9 *Diagnosis of Renal Functions. R. C. Cabot, Boston.
10 Pericarditis with Effusion, Complicated by a Pleural Effusion. C. M. Doland, Philadelphia.
11 Acute Diseases of the Nasal Sinuses. G. W. Spohn, Elkhart, Ind.
12 Constitutional Low Arterial Tension and Its Relation to the Life of the Individual. L. F. Bishop, New York.
13 Massage in Parametritis, Perimetritis, Salpingitis and Oöphoritis. G. Norstrom, New York.

6. **Effects of Uric Acid on the Genitourinary Tract.**—Porter summarizes his paper as follows: Uric acid is one of the normal end products of proteid oxidation reduction. It is never present in any food substances and is never found in the blood. The antecedent proteid molecule from which uric acid is made is contained in the blood. Uric acid is made in the renal cells by the oxidation reduction of the desulphurized proteid molecule. The proteid molecule is desulphurized in the epithelial cells of the gastric follicle and in the hepatic cells. In gout, uric acid is formed in protoplasmic structures other than renal cells by a vicarious action by which the proteid molecule is oxidized at an abnormal point. It is absolutely necessary to have uric acid produced in the renal cells. When uric acid is produced faster than it can be converted in the uriniferous tubules into a urate it is overproduced. The urate is produced by the action of the uric acid on the neutral phosphate, thus forming the urate and an acid phosphate. Sulphuric acid is formed in the epithelial cells of the kidneys from the proteid molecule. In the cavity of the stomach the sulphuric acid acts on the sodium chlorid, forming hydrochloric acid and sodium sulphate. The hydrochloric acid in the lumen of the intestine attacks the alkaline sodium phosphate, restoring the sodium chlorid lost in the stomach and forming the neutral salt for the blood. The three etiologic factors causing overproduction of uric acid are defective oxygen supply, overfeeding, disturbances in the nervous mechanism. Uric acid is formed by oxidation reduction and not by synthesis. The intensity of the toxin transformed in the kidneys determines the character of the lesion. The effects of the overproduced uric acid are renal hypertrophy, parenchymatous degeneration of the kidneys and diffuse or interstitial transformation. This overproduction may cause a catarrhal condition of the pelves of the kidneys or a truly inflammatory process may result, or it may act as a general irritant to the whole genitourinary tract. Giving alkalies masks symptoms, but never removes the etiologic factors, while the removal of the latter should be the main object of all therapeutics. Overproduction of uric acid may aid in causing phosphatic as well as urie acid calculi. Uric acid may act as an irritant in solution, in its isolated crystalline form, or massed together in the form of a calculus. The action of uric acid on the genitourinary tract is always mechanical. The effects of the overproduced uric acid are often confounded with disturbances in metabolism that cause the overproduction.

9. **Diagnosis of Renal Functions.**—Cabot urges that functions, not histologic appearances, are what we should strive to recognize in kidney disease. Albumin and casts alone never prove the existence of nephritis. They may or may not accompany it. The physical characteristics of the urine, the visceral evidence of uremia, dropsy and cardiac involvement are, with time, the best help to the functional diagnosis of kidney disease. The dilution test, the concentration test and, if opportunity offers, the quantitative estimation of the capacity of the kidneys to excrete particular substances may render valuable assistance. Cabot particularly recommends a very simple test, which seeks to determine whether and to what extent the kidney is injured to secrete a dilute urine after profuse ingestion of fluid, or a concentrated urine when liquid is withheld. In the early stages of acute renal insufficiency the kidney often loses for the time the power to secrete a dilute urine. On the other hand, in some cases of chronic interstitial nephritis the kidney continues to secrete a concentrated urine, even when water is considerably restricted.

Boston Medical and Surgical Journal.

May 10.

14 The Boston Medical Association. D. W. Cheever, Boston.
15 Past of the Boston Medical Association. Change in the Fee-Table. J. C. White, Boston.
16 A Biographic Clinic on Tchaikovsky. (To be continued.) G. M. Gould, Philadelphia.
17 *Treatment of Ununited Fractures of the Neck of the Femur by Operation. F. Cobb, Boston.
18 A Dietetic Study. A. L. Benedict, Buffalo.

17. **Ununited Fractures of Neck of Femur.**—Cobb claims that fractures entirely intracapsular are very rare. When they do occur and are unimpacted the obtaining of union by any form of fixation apparatus is exceedingly doubtful. The operation of nailing the fracture with or without open incision is to be adopted, he thinks, whenever possible. In the young and middle aged, when no contraindications to operate are present, such as obesity, general debility, marked arteriosclerosis or complicating disease, the method with open incision is more accurate and preferable. In persons of advanced age and those with definite contraindications to surgical interference the direct method without incision, as practiced by Nicolaysen, should be used in all cases if seen sufficiently early. In employing the method of Nicolaysen a general anesthetic should be given.

Lancet-Clinic, Cincinnati.

May 5.

19 Modern Methods of Infant Feeding. A. Friedlander, Cincinnati.
20 Treatment of Hemoptysis. C. Knapp, Evansville, Ind.
21 The Philosophy of Inflammation and Its Treatment. B. S. Horne, Jonesboro, Ind.

May 12.

22 Obstetrics and Gynecology. R. W. Stewart, Cincinnati.
23 Address of the President of the Obstetrical Society of Cincinnati. J. A. Johnston, Cincinnati.
24 Traumatic Hysteria. J. V. Shoemaker, Philadelphia.

St. Louis Medical Review.

May 5.

25 Accuracy in Medical Nomenclature. A. L. Benedict, Buffalo, N. Y.
26 Pharmacology of Ions. (Continued.) O. H. Brown, St. Louis.

Journal of Outdoor Life, Saranac Lake, N. Y.

May.

27 A Short Talk to Laymen. C. L. Minor, Asheville, N. C.
28 Tuberculosis in the Workshop. H. R. M. Landis, Philadelphia.
29 What the National Government Is Doing for the Cure and Prevention of Tuberculosis. P. M. Carrington, Ft. Stanton, N. M.
30 *Open-Air Treatment of Tuberculosis. J. W. Pettit, Ottawa, Ill.

30. **Open-air Treatment of Tuberculosis.**—According to Pettit the constant supervision of the patient is the most important point in which the sanatorium treatment must neces-

sarily differ from that adopted by the general practitioner. The patient being under constant supervision, early symptoms of an intercurrent affection are noted and serious complications often anticipated. Medicines are used as indications arise and are usually administered to meet symptoms. Cough, night sweats, loss of appetite and anemia, as a rule, lessen at once and soon disappear under rest and fresh air without the use of drugs. Speaking of the home treatment of tuberculosis, Pettit says that since the agencies are so simple it would seem there would be no difficulty in carrying out the treatment at home. Experience, however, teaches that, as a rule, it can not. First, because so many cases occur in families where it is not possible to make the application. Second, when patients are more favorably situated it is impracticable for the reason that the treatment has not been accepted by the laity with that degree of confidence so essential to its application. A third reason may be given that the methods are not well understood by the average physician, and when they are they consume so much time and energy that it is hardly possible for the busy physician to get the time from his other work to devote to the few patients whom he may have under his care. In other words, it is for practical rather than for theoretical reasons that the treatment can not be applied at home. The education of the public and of the profession must come through sanatoria. These will be training schools which will be centers of influence in propagating the new doctrine and its methods; it will be wise, therefore, for physicians to devote their energies, for the present at least, to the establishment of sanatoria rather than to take the risk of bringing the treatment into disrepute by many failures, which must result through lack of experience on the part of physician, patient and friends.

American Journal of Obstetrics, New York.

May.

31 Puerperal Eclampsia. J. F. Moran, Washington, D. C.
32 *Clinical Observations on Thirty-seven Cases of Eclampsia. G. H. Ryder, New York.
33 Leucocyte Counts in Gynecology. H. C. Taylor, New York.
34 *Macroscopic Appearances of the Ovary Warranting Its Removal. B. McE. Emmet, New York.
35 *Time of Ovulation. J. W. Rowe, Cincinnati.
36 Hematometra, Caused by a Myoma of the Cervix. C. G. Levison, San Francisco.
37 *Ventrofixation Followed by Normal Delivery. A. L. Smith, Montreal.
38 A General Surgeon's Views on Some Pelvic Conditions in Women. R. T. Morris, New York.
39 *Radium Therapy in Pediatrics and Gynecology. T. Abbe, Washington, D. C.
40 Surgical Conditions of the Puerperium. J. C. Hubbard, Boston.

32. **Clinical Observations on Eclampsia.**—In 37 cases reported by Ryder, 13 patients died, a mortality of 35 per cent. The period of pregnancy seemed to affect the mortality. Of the series, 25 patients were over seven months pregnant and 12 seven months or under. Of the former, 6 died, a mortality of 24 per cent. Of the latter 12 died, a mortality of 58 per cent. In other words, the mortality when the disease occurred on or before the seventh month was more than twice as high as when it occurred after the seventh month. The mortality among primiparæ and multiparæ was nearly even. Of 21 primiparæ, 8 died, 38 per cent., and of 16 multiparæ, 5 died, 31 per cent. Age seemed to affect the mortality very little. Of 19 who were 25 years old or less, 6 died, 31 per cent. Of 10 over 25, 7 died, 38 per cent. The mortality was less in the colored than in the white women. Of the former, 9, 2 died, 22 per cent.; of the latter, 28, 11 died, 39 per cent. The severest and most fatal type of the disease was the hemorrhagic, with vomiting of blood, blood in the stools or petechiæ over the body. In the 37 cases there were 11 patients of this type, and of these 9 died, 82 per cent. mortality. Moreover, of the entire 13 deaths of this series, 9, or 69 per cent., were of the hemorrhagic type. When these signs of hemorrhage in the vomitus, stools or skin are seen the prognosis is always bad.

On the other hand, cases of postpartum eclampsia were nearly all of mild type. There were seven of these, the first convulsion occurring from within a few minutes to several days after delivery. One case occurred as late as the eleventh day. All except one of these patients recovered, a mortality of 14 per cent. Of the 30 cases of antepartum or intrapartum eclampsia, 12, or 40 per cent., were fatal. Postpartum, 7 cases, 1 death, 14.3 per cent.; intrapartum, 6 cases, 2 deaths, 33.3 per cent.; antepartum, 24 cases, 10 deaths, 41.6 per cent. After delivery many of these patients showed marked and immediate improvement, a few seemed to grow worse and the rest were apparently not immediately affected. Eleven, or 37 per cent., showed immediate improvement; 4, or 13 per cent., seemed to grow worse, and the rest, 50 per cent., were not immediately affected. Over one-third then showed immediate improvement after emptying the uterus, and only one-eighth seemed worse.

The time elapsing from the first convulsion to the delivery of the patient was twelve hours or over, and of these 6 died, a mortality of 60 per cent. In 20 the interval was less than twelve hours, and of these 6 died, 30 per cent. mortality; or the fatality was about twice as high where the delay in delivery was over twelve hours. In 19 cases the cervix was dilated less than two fingers when first seen; in 11 two or more fingers. Of the former, 9 patients died, a mortality of 47 per cent. Of the latter, 3 died, 27 per cent. mortality. In method of delivery (nearly all the cases were dilated first with bags) there were four so-called vaginal Cæsarean sections; of these patients 3 died, 75 per cent. mortality. Accouchement forcé was performed in 18 patients; 7 died, a mortality of 39 per cent. Forceps operations were done in 5 patients; 1 died, a mortality of 20 per cent. In 10 normal deliveries (including the postpartum eclampsias) 2 patients died, 20 per cent. mortality. Premonitory symptoms, giving ample warning of approaching danger, were present in 29 out of the 37 cases. Of the infants 50 per cent were saved (one set of twins made the total number of infants 38). Of the 19 that were lost, 12 were stillborn and 7 died, many showing the typical lesions found in the adult cases of eclampsia.

34. **When to Remove Ovary.**—Emmet advises that on thorough inspection of a suspected ovary anything which does not at once proclaim itself innocent and harmless be removed immediately, and that if a growth, however small, suggests active proliferation or malignancy, the ovary be taken away in time.

35. **Time of Ovulation.**—Rowe advances the hypothesis that ovulation occurs normally at the close of the period of quiescence, and initiates and, indeed, directly causes the period of hypertrophy. Menstruation, on the contrary, is the result of the exhaustion and disappearance of the stimulus. If the ovum dies, then all the preparations made for its reception are useless and must be disposed of. Menstruation, therefore, is an almost infallible proof that the last ovum discharged from the ovary is dead. If, on the other hand, the ovum does not die, the stimulus begun with ovulation goes on and the time for menstruation passes without that event. Therefore, if the expected menstruation does not occur, then the ovum last expelled from the ovary was still alive. And if the last expelled ovum is alive at the time of the next expected but suppressed period, then that ovum was fertilized, for otherwise menstruation would have occurred.

37. **Ventrofixation.**—In all cases in which retroversion is the only lesion, and when there are no adhesions, Smith performs a modified Alexander operation. This modification consists in crossing one ligament under the skin, tying the two ligaments with a reef knot opposite the right external inguinal ring, which knot is secured from slipping by a few fine catgut stitches. When doing a ventral fixation Smith scarifies a space an inch in diameter on the anterior surface of the fundus and on the corresponding abdominal peritoneum. The uterus is anchored by two chromicized catgut stitches passing through the peritoneum, muscle and fascia on both sides and deep in the uterine wall. These stitches must last a month. In both the Alexander and ventral fixation operations Smith says that it is important to amputate the cervix if it is too long, so as to leave the uterus only two and one-half inches deep, thus lightening the load to be carried by the shortened ligaments or by the adhesions.

39. **Radium Therapy.**—Abbe claims that radium gives the most satisfactory results in the treatment of birthmarks, lupus and keloids. It is helpful in the late cases of cancer of the uterus to palliate some of the symptoms, and may proba-

bly be curative in the very early stages. It is the most desirable treatment of inoperable strictures of the rectum and esophagus, where it gives more comfort to the patient than colostomy or gastrostomy.

Canada Lancet, Toronto

May.

41 Symptoms of Appendicitis. J. S. Hart, Toronto.
42 *Medical Treatment of Appendicitis. G. H. Carveth, Toronto.
43 Appendicectomy. A. H. Perfect, Toronto.
44 Our Children and Tuberculosis. J. Grant, Ottawa, Canada.
45 Rational Treatment of Urethritis. N. E. Aronstam, Detroit, Mich.
46 The Trephine in Insanity. J. Stenhouse, Toronto.

42. **Medical Treatment of Appendicitis.**—Carveth sums up his paper as follows: 1. Absolute rest in bed until all the symptoms have subsided for some days. 2. The withdrawal of all food by mouth and the severest restriction on liquids swallowed. 3. The avoidance of purgatives, for while they may appear to be good in some cases, they are dangerous. 4. The careful employment of opium to the extent of relieving pain and lessening peristalsis, but not to the extent of materially contracting the pupils nor of arresting the urinary flow. 5. That very large enemata are very dangerous, and that the bowels should be moved, after all the acute symptoms have subsided, by small oil enemata, aided by gentle aperients, such as small doses of calomel or oil.

Annals of Otology, Rhinology and Laryngology, St. Louis.

March.

47 Morphology and Embryology of the Nasal Fossæ of Vertebrates. L. Dieulafe, Clermont, France.
48 *Macroscopic Diagnosis and General Indications for Treatment of Cancer of the Larynx. J. N. Mackenzie, Baltimore.
49 *Treatment of Hypertrophic and Intumescent Rhinitis. E. F. Ingals, and S. A. Friedberg, Chicago.
50 Treatment of Acute and Chronic Maxillary Sinusitis. C. F. Theisen, Albany.
51 The Use of the Bur in the Mastoid Operation. A. Barkan, San Francisco.
52 Non-Diphtheritic Membranous Pharyngitis and Rhinitis with Hyperpyrexia and an Unusual Number of Complications. J. F. McCaw, Watertown, N. Y.
53 Deformity of the Auricle from Perichondritis Following Radical Operation for Chronic Middle Ear Suppuration and Multiple Furuncles. W. H. Haskin, New York.
54 Actinomycosis of the Middle Ear, with Postmortem Findings. J. C. Beck, Chicago.
55 Keloid Tumors. G. A. Webster, Boston.
56 Growth of Bone in Both Tonsils. W. W. Carter, New York.
57 Mastoiditis Complicated with Extradural Abscess, Without Discharge from the Auditory Meatus. S. Iglauer, Cincinnati.
58 A Case for Diagnosis. T. H. Farrell, Utica, N. Y.
59 Mueller's Vertical Nasal Cut. F. B. Seitz, Buffalo.
60 Indications for Operating in Acute Mastoiditis. P. D. Kerrison, New York.
61 Seven Intracranial Operations Within a Year. G. F. Cott, Buffalo.

48. **Treatment of Cancer of Larynx.**—Mackenzie insists on the application of the naked-eye method of diagnosis in the case of malignant tumors of the larynx. He urges that every resource and refinement of clinical diagnosis, including the exclusion of syphilis by the iodids and tuberculosis by tuberculin, should be resorted to before an appeal to the microscope is made. The moment the continuity of the growth is broken, in that moment is opened the pathway for self-poisoning, and an unfavorable influence is exerted on the local process. If ulceration has already taken place, a portion of the growth can be taken, if skilfully removed, for microscopic examination, but in the majority of cases the tumor is buried and an exploratory incision for purposes of microscopic diagnosis means two operations. If the tumor is malignant, this opens the way for general dissemination. The microscope should be the final method of appeal. If microscopic examination is necessary the patient and surgeon should be prepared for immediate operation.

49. **Treatment of Hypertrophic and Intumescent Rhinitis.**—In order to show the value of galvano-cautery Ingals and Friedberg studied 100 cases, 50 of the hypertrophic and 50 of the intumescent form of rhinitis, in which treatment had been carried sufficiently far to serve as a basis for comparison. They conclude that the galvano-cautery, when properly used, offers one of the best, if not the best, methods for the treatment of the intumescent and hypertrophic forms of rhinitis. The dangers of the middle-ear infection have been greatly exaggerated, not any case in the series and only one among several thousand cauterizations having come under their observation. The liability to adhesion formation is not great, providing sufficient care be taken not to injure the opposite septal mucous membrane, and providing, in cases in which the subsequent swelling is marked, that a probe be passed between the opposing surfaces in four or five days. A 4 per cent. solution of cocain is sufficient in the vast majority of cases to induce complete local anesthesia, from three to six applications on a cotton-wound flat applicator being sufficient for the purpose.

As the result of experience, especially in cases of marked intumescence, they believe that a spray of adrenalin or suprarenalin, gr. 1/8 to the ounce, materially assists in producing anesthesia. The objection that the galvano-cautery destroys too much of the mucous membrane does not obtain if the cauterization is linear, as here recommended, and if it is done properly, whereby very little mucous membrane is destroyed. Scab and crust formation does not occur any oftener following cauterization than after other nasal operations. In fact, it was noted in but very few instances, and in some of these a change in the spray solution caused a cessation of this trouble. No packing is needed to prevent hemorrhage, and this factor makes the discomfort following the operation very much less than when some other methods are employed. There is very little pain after galvano-cauterization of the turbinated bodies.

Journal of the Kansas Medical Society, Lawrence.

May.

62 Incidence of Chronic Bright's Disease, Its Frequency, Diagnosis and Treatment. F. A. Carmichael, Goodland, Kansas.
63 *Treatment of Recent Sprains and Contusions. R. McE. Schauffler, Kansas City.
64 Incurable Skin Disease. W. Frick, Kansas City.

63. **Treatment of Recent Sprains and Contusions.**—Schauffler claims that early massage to diminish the exudate and improve the circulation is strongly indicated. This should be toward the body and from the proximal side of the swelling progressively across it. Unload the blood vessels at a distance up the limb, then rub down the upper edge of the swelling, then advance to the center, etc. Support may be afforded by a flannel bandage or, better, by some form of elastic bandage. This may be replaced, often early and nearly always later, by appropriately applied strips of rubber adhesive plaster. Over the contusion in the soft parts and where applied to prevent swelling, the strap should be at "fascial tension," i. e., about the tightness of the fascia over a large muscle. Only when it is desired to relieve a torn ligament by outside strapping should the plaster be tightly drawn, and in that case it should, of course, never completely encircle the limb. Hot compresses may be used early, or to still greater advantage, dry heat in an appropriate bake oven, if the affected part be a limb. The temperature can be pushed up to 300 F. if proper precautions are taken to absorb all the moisture. The advantage of baking in old joint lesions is well known. When the apparatus is at hand it may be advantageously employed in most recent cases.

Passive motion should be substituted at once by the surgeon. It should be light, but of good range, and persisted in, in spite of moderate pain. Schauffler says that the whole treatment of a sprained ankle by the "army strapping method" fails unless the patient is made to walk from the first; carefully, to be sure, and in short installments, with the foot elevated between times; but walk he must, or the circulation becomes sluggish and the treatment fails. A large joint effusion is the only contraindication to early active motion, except fracture, and some kinds of fracture do well under the ambulatory treatment after a few days of rest. Massage may be continued through the strapping, or an elastic bandage may be used and removed for rubbing, baking, and so on. A belladonna-ichthyol ointment may be applied under the bandage. In the latter stages electricity is of distinct value. It is Schauffler's custom to treat all fractures of the forearm between flat padded board splints and to remove these every few days for bathing of the skin and light massage. Passive motion is instituted in ordinary cases within a week and always after two weeks. He has never had the bone slip out of place under such manipulation if it had been properly reduced at first. In fracture of the neck of the femur in old

people he applies no traction or splints. The limb is kept quiet with sand bags for 48 hours, then the patient is made to sit up in a reclining chair and is early allowed to walk with crutches. The weight of the limb is supported by slings of plaster or by a hip splint.

The Journal of Cutaneous Diseases, New York.

May.

65. Life History of a Case of Mycosis Fungoides. G. T. Jackson, New York.
66. *Evolution of a Case of Mycosis Fungoides Under the Influence of Roentgen Rays. C. J. White and F. S. Burns, Boston.
67. *Presence of Indican in the Urine of Those Affected with Dermatitis Herpetiformis. M. F. Engman, St. Louis.

66. **Roentgen Ray in Mycosis Fungoides.**—The patient whose case is reported by White and Burns is believed to have succumbed to the effects of a too rapid relief from his malignant disease. The machines used were six inches and twelve inches in coil. About one-third of the exposures were given on the six-inch coil. The total time of exposures was eight hours and twenty minutes in the space of 54 days. The tumors disappeared rapidly and death evidently was the result of a toxemia caused by the absorption of broken-down tissue.

67. **Indicanuria in Dermatitis Herpetiformis.**—During the past five years Engman has examined the urine of all his patients with dermatitis herpetiformis for indican; the hydrochloric-acid nitric-acid test being the one most frequently employed. The intensity of the resulting color reaction was used as a comparative test of the amount present. He reports on 18 cases, 6 having occurred in his own practice. He reports that 14 of these cases are reliable, the other 2 being of uncertain value. In all of these 14 cases indican was found in marked excess in the urine. In the author's 6 cases eosinophiles were of high percentage in the blood and bullæ contents, and careful observation was made to see if there was coincident eosinophilia and indicanuria. As the indican was found in greatest excess during an exacerbation of the dermal process, and as eosinophile cells occur in the blood of this condition in the highest per cent. during a like period, the two conditions were found to be coincident.

The Journal of the Minnesota Medical Association and the Northwestern Lancet, Minneapolis.

May 1.

68. *Significance of Urinary Analysis in Nephritis. N. S. Davis, Chicago.
69. Common Sources of Error in the Diagnosis of Heart Lesions. C. L. Greene, St. Paul.
70. The Best Form of Incision in the Extraction of Cataract. C. Williams, St. Paul.
71. Submucous Operations on the Nasal Septum, with Special Reference to the Resection Operation. C. N. Spratt, Minneapolis.
72. *Hay fever Cured by the Use of Cold Applications. O. H. Wolner, St. Cloud, Minn.

68. **Significance of Urinary Analysis.**—Davis believes that a pathologic diagnosis is impossible in many cases of nephritis, and that in making a diagnosis, the condition of the blood and blood vessels, and nutrition, and the existence of edema and the uremic manifestations, and not changes in the urine, are of the most importance. Albumin and casts are always significant of defective kidneys. The defect may be functional or anatomic, or both. But the converse of these is not true, for nephritis may exist when the urine is normal. Red blood corpuscles in more than very small numbers indicate an actively developing lesion, and therefore either an acute one or an exacerbation in a chronic one. However, again, the converse of this statement is not true, for red blood corpuscles may be wanting in the urine from kidneys which are acutely inflamed. A large amount of sediment made up chiefly of casts indicates an extensive involvement of the renal epithelium in pathologic changes. The same conclusion is justified when the sediment is large in amount and contains a large proportion of renal epithelium.

The best evidence of the competence of kidneys to perform their work is by estimating from the specific gravity of the urine the total solids voided in twenty-four hours. Such new methods of determination as cryoscopy and electrical conductivity afford no better information. The relative amount of ammonia voided as compared to urea or total nitrogenous matter is sometimes of use in roughly gauging the functional activity of the liver, for it is in this organ chiefly that the ammonium compounds in the blood are transformed into urea. Therefore, if ammonia is eliminated in excess and urea in lessened amount, the liver, rather than the kidneys, is inactive. But it must be remembered that if there is an excess of acid in the blood it may form compounds with ammonia which will effect the same result. This relationship of ammonia to urea exists commonly in uremia and often is a warning of its approach. The recognition of the presence of indican or of combined sulphates in large quantities is important, because they indicate much decomposition of proteids in the intestines and the production of substances which are abnormal to the human body and which, when eliminated by liver or kidneys, may injure them, or at least tax their functional powers. They indicate an intestinal indigestión which must be corrected, especially when there is nephritis, because it so often provokes uremia.

72. **Cold Applications in Hay Fever.**—All other attempts to relieve the patient during a very bad attack of hay fever having failed, Wolner applied cold compresses to the man's forehead and face, wringing them out of ice water, and reapplying them as soon as they began to get the least bit warm. In about three-quarters of an hour relief was obtained. The treatment was kept up constantly for about three hours, and off and on for about six hours. The patient did not have another attack that season. A year later the attack came on again. The patient applied cold compresses for about four hours and was entirely relieved in twenty-four hours. The attack did not recur.

Bulletin of the Johns Hopkins Hospital, Baltimore.

May.

73. Instruction in Operative Medicine. H. Cushing, Baltimore.
74. *Suprapubic Hysterotomy as a Means of Diagnosis and Treatment of the Uterus. W. W. Russell, Baltimore.
75. Home Sanatorium Treatment of Consumption. J. H. Pratt, Boston.
76. Tuberculosis in Penal Institutions. J. B. Ransom, New York.

74. **Suprapubic Hysterotomy.**—The procedure employed by Russell is described as follows: A uterus which is suspiciously enlarged or which has given rise to intractable, unexplainable hemorrhages, is exposed, either in the course of an abdominal operation for other purposes or in the course of a purely exploratory operation in which the abdomen had been opened for the particular purpose of doing a hysterotomy. After the pelvic organs have been examined the uterus is drawn out of the abdominal opening as far as the cervical portion and is surrounded by gauze on all sides. It is then grasped below on both sides by an assistant, who lifts the body of the organ well up while the operator boldly splits it in the median line on the anterior wall, half-way down toward the neck, as well as through the fundus to the posterior surface. The entire thickness of the uterine wall is divided for a distance of two or more centimeters down into the cavity, the mucosa can then be inspected at every point, the finger can be inserted and the whole cavity felt, and if there are any nodules in the wall they can be palpated. If the mucosa is diseased it can be scraped away with surprising ease and with the certainty of reaching all points efficiently, even in the cornua about the entrance of the tubes, a procedure which is almost impossible by the cervical route. The bleeding is only moderate, and it has not been necessary to put ligatures around a vessel. The wound in the uterus is closed with interrupted catgut sutures passed from the peritoneal surface down to the mucous membrane. These are placed about 0.5 cm. apart, leaving the detail of closer approximation to fine catgut sutures. Catgut sutures, if properly sterilized, may be employed with safety in cases in which there is not history of infection; otherwise fine silk is preferable.

Russell says that suprapubic hysterotomy is of conspicuous service in cases of persistent uterine hemorrhage which is not controlled by any form of treatment and in which bimanual palpation of the pelvic organs has given an absolutely negative diagnosis. Small submucous and pedunculated myoma, which do not affect the size or contour of the uterus, but which may be the source of dangerous hemorrhage, are easily

detected and removed by this method. When the abdomen has been opened for some other purpose, and no explanation has been found for the uterine hemorrhage, he would then also advocate its application. No deaths have occurred among 32 patients operated on, notwithstanding the fact that many of these cases were complicated by other serious abdominal or pelvic disturbances, proving quite conclusively the slight danger attending the operation.

The Physician and Surgeon, Detroit, and Ann Arbor, Mich.

March.

77 Congenital Luxation of the Head of the Radius. W. E. Blodgett, Detroit.
78 Conduct of Labor During the Second Stage. W. H. Morley, Ann Arbor.
79 Remarks on La Grippe. J. S. Caulkins, Thornville, Mich.

The Medical Herald, St. Joseph, Mo.

April.

80 Postgraduate Study. A. L. Benedict, Buffalo.
81 *Is Vaginal Cesarean Section Justifiable? P. Findley, Omaha.
82 Pathology of the Morphin Habit and My Preferred Method of Treatment. S. G. Burnett, Kansas City.
83 *Intestinal Tuberculosis and Its Surgery. L. L. McArthur, Chicago.

81-82.—See abstract in THE JOURNAL, April 7, 1906, page 1053.

Journal of the South Carolina Medical Association, Charleston.

April 21.

84 Flat-foot from the Physician's Standpoint. T. Potter, Indianapolis.
85 Bronchopneumonia. E. A. Hines, Seneca, S. C.
86 Lachrymal Stricture, with Exhibition of New Instrument. J. W. Jervey, Greenville.
87 Case of Pneumonia. J. B. Hughey, Greenwood.
88 Ileocolitis. C. C. Gambrell, Abbeville.
89 Treatment of Wounds. G. A. Neuffer, Abbeville.

Brooklyn Medical Journal.

April.

90 Simple Fractures About the Elbow Joint. J. F. Meagher, Brooklyn.
91 Postoperative Diet. H. T. Hotchkiss, Brooklyn.
92 Diet of Diathetic Children. L. Kerr, Brooklyn.
93 Clinical Aspects of Trachoma. G. W. Vandergrift, Brooklyn.
94 Two Cases of Injury of the Ear Caused by Lightning. W. C. Braislin, Brooklyn.
95 The Automobile as a Practical Vehicle for Physicians. E. P. Hicks, Brooklyn.

Vermont Medical Monthly, Burlington.

April 15.

96 Compensation and Its Effects on Prognosis. J. McCrae, Montreal.
97 Diagnosis and Treatment of Some Chronic Diseases. E. R. Campbell, Bellows Falls, Vt.
98 Anesthesia from Morphin and Scopolamin. T. J. Farnsworth, Clinton, Iowa.
99 Inoperable Case of Cancer of the Uterus Greatly Benefited by Palliative Operation. A. L. Smith, Montreal.

The Medical Fortnightly, St. Louis.

April 25.

100 Intrinsic Characteristics of Paralyses. C. G. Chaddock, St. Louis.
101 Hygiene and Prevention of Tuberculosis. H. Albert, Iowa City.
102 Tuberculous Stricture of the Ileum. J. McH. Dean, and H. P. Wells, St. Louis.
103 Selective Absorption by the Cell. W. F. Waugh, Chicago.
104 Relation of Man to Nature (A Study Prompted by Testimonies of the Sepulchres.) A. S. Ashmead, New York.
105 Case of Megalogastria. W. Rush, St. Louis.
106 Presentation of Specimens. F. Reder, St. Louis.

Western Medical Review, Lincoln, Neb.

April.

107 Foreign Bodies in the Esophagus, and Foreign Bodies in the Larynx and Trachea. W. M. Cowgill, Lincoln.
108 Diseases of the Accessory Sinuses of the Nose. D. C. Bryant, Omaha.
109 Laryngeal Affections of Singers. H. B. Lemere, Omaha.
110 Limitations of Office Gynecology. W. O. Henry, Omaha.

Virginia Medical Semi-monthly, Richmond.

April 27.

111 Types of Modern Doctors. H. A. Royster, Raleigh, N. C.
112 Treatment of Renal Calculi and Pyelitis. L. C. Bosher, Richmond.
113 Milk Supply of Richmond, Virginia, from a Sanitary Standpoint. E. C. Levy, Richmond.
114 Principles of Surgery. S. McGuire, Richmond.

Annals of Gynecology and Pediatry, New York.

April.

115 Recent Researches Into the Bacteriology of Peritonitis in Relation to Pelvic Surgery. P. W. G. Sargent, London, Eng.

Southern California Practitioner, Los Angeles.

April.

116 Intestinal Obstruction in Children. W. A. Edwards, Los Angeles.
117 Hydrotherapy. B. S. Angier, Los Angeles.
118 Poetical Nomenclature of Human Anatomy. H. Sherry, Pasadena.
119 Eustachian Catheterization Through the Mouth. H. A. Kiefer, Los Angeles.
120 Scopolamin-Morphin Anesthesia. Z. T. Malaby, Pasadena.
121 Ocular Symptoms of Suppuration in the Nasal Sinuses. H. Hastings, Los Angeles.

Ophthalmic Record, Chicago.

April.

122 Cholesterin Crystals in the Vitreous with Optic Atrophy. G. E. Seaman, Milwaukee.
123 Some Forms of Hereditary Cataract. C. A. Wood, Chicago.
124 Two Cases of Plastic Lid Building. C. H. Baker, Bay City, Mich.
125 Glioma of the Retina. E. O. Sisson, Keokuk, Iowa.
126 Extraction of Cataract in Its Capsule. W. R. Parker, Detroit.

The Medical Sentinel, Portland, Ore.

April.

127 Retrodisplacements of the Uterus. M. D. Equi, Portland.
128 Pulmonary Tuberculosis. E. A. Pierce, Salem.
129 Hydatiform Mole. M. Brundage, Shelley, Idaho.

The Wisconsin Medical Journal, Milwaukee.

April.

130 Penetrating Wounds of the Abdomen. G. A. Bading, Milwaukee.
131 Feeding of the Typhoid Fever Patient. T. J. Redelings, Marinette.
132 Thoughts Suggested by Recent Articles on Pneumonia. G. F. Butler, Chicago.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal.

April 28.

1 *Extroversion of the Bladder. A. A. Lendon.
2 *Id. H. S. Newland.
3 Bradycardia, with Arrhythmia and Epileptiform Seizures. J. M. Finny.
4 *Rickets in Relation to the Duration of Lactation. A. Dingwall-Fordyce.
5 *Pleuritic Effusion Treated with Adrenalin by the Preliminary Intra-serous Injection Method. W. Ewart and F. Murray.
6 *Treatment of Branchial Fistula. M. J. Chevers.
7 Incubation Period of Malta Fever. E. H. Ross.
8 Mediterranean Fever in South Africa. C. Birt.

1. **Extroversion of Bladder.**—Special reference is made by Lendon to the extraperitoneal transplantation of the ureters into the rectum and three cases are reported. In the first case, after careful disinfection of the bladder surface, a director was passed in each ureter. A button or rosette of mucous membrane was cut around the ureteral orifice so as to save any valvular or sphincteric action which that opening might possess. A finger was inserted into the rectum and a pair of Lister's forceps was guided along the finger and thrust through the wall of the bowel. Its blades were opened widely enough to seize the end of the ureter, which was then drawn through into the rectum and kept there in position with an ordinary pair of clip forceps. The same was done on the opposite side, the handles of the forceps dangling outside the anus. Unfortunately, an assistant removed the forceps attached to the right ureter, which worked its way out of the rectum. Later this ureter was transplanted into the sigmoid flexure. The result was an excellent one. There was no irritation of the rectum, no frequent urination, and the patient has enjoyed physical comfort for nearly seven years. In the case of the second patient the right kidney had been removed previously so that only one ureter remained to be dealt with. The only modification of the technic of the previous operation consisted in first inserting a rubber catheter, with its point removed, into the ureter, and stitching it to the mucous membrane. This facilitated the drawing of the ureter into the rectum without so much bruising of the orifice. The patient died three months later, and at the autopsy it was found that the ureter had escaped from the rectum, the urine meanwhile having found its way through an ulceration into a loop of small intestine, at a distance of a few inches from the ileocecal valve. The third patient was operated on by this method with complete success about a year ago.

2. **Id.**—Newland also calls attention to the advantages of extraperitoneal implantation of the ureters and reports one successful case.

4. **Rickets and Lactation.**—With a view to determining the relation of the incidence of rickets to the varying conditions

under which the function of lactation is exercised, Fordyce examined 200 children of different families, aged from 6 months to 3 years. Rickets was marked in 61, slight in 55 and absent in 84 patients. He found that the amount of rickets among infants mixed-fed is approximately the same as among those bottle-fed, but differs in this respect that whereas among the former the percentage number of marked cases of rickets among those suffering from the disease was 50 per cent., in the latter it was 65.1 per cent. There appeared to be a steady increase in the amount of rickets with successive breast-fed children in the family. Of first children breast-fed 25 per cent. showed rickets; of second children, 41 per cent.; of third, 58 per cent., and of those later, 65 per cent., this gradual increase being probably in part accounted for by the later children getting a less plentiful supply of maternal milk than the earlier. Of children later than the third in the family the percentage of those with rickets among the breast-fed not only equaled but even exceeded that of corresponding children bottle-fed. Fordyce thinks that it is clear that bottle-feeding *per se* has no greater tendency to produce rickets among later children than among those earlier in the family.

5. **Adrenalin in Pleuritic Effusions.**—Ewart and Murray treated their patient at first by a modification of Barr's method, which combines the evacuation of fluid with its replacement by air. The air was not injected, but was allowed to be drawn in by thoracic suction. The secondary effusion which ensued was treated with preliminary intraserous injections of adrenalin with a view to eventual paracentesis, but the latter was not performed as the fluid underwent complete absorption. Five injections were given of 10 minims each of a 1 to 1,000 solution of adrenalin.

6. **Treatment of Branchial Fistula.**—In the case reported by Chevers the fistula extended from the origin of the sternomastoid into the clavicle, at which point it was discharging, and ended at or about the level of the upper border of the hyoid bone. There was no tumor in connection with the fistula or anywhere in the neck. There was one communication in the pharynx. The fistula had been discharging since the patient (now 22) had been a child. The patient was treated by electricity, the galvanic current being used daily for a few minutes after the fistula had been washed out thoroughly with a 1 in 40 phenol solution. The method employed is described at great length.

The Lancet, London.

April 28.

9 Bearing of Metabolism Experiments on the Treatment of Some Diseases. E. I. Spriggs.
10 *Recent Advances in the Surgery of the Blood Vessels. D. Power.
11 Hospital Ships and Their Working in War and Peace. P. B. Handyside.
12 Leprosy in Cape Colony. R. S. Black.
13 Case of Acute Meningococcal Septicemia. F. W. Andrewes.
14 *Volvulus of the Cecum Treated by Reduction and Appendicostomy. R. C. B. Maunsell.

10. **Surgery of the Blood Vessels.**—Power discusses the various methods now employed in the treatment of aneurisms of both the arterial and the venous systems.

14. **Volvulus of Cecum.**—When Maunsell opened the abdomen in this case a tensely distended cecum and ascending colon were seen filling the lower abdomen and pelvis. These were deflated and withdrawn, when it was found that the cecum and portion of the ascending colon had made a complete turn from below upward and from right to left. The lower portion of the ileum having been carried in front of the colon was tightly wound around the neck of the strangulated large intestine. The twist having been reduced, it was found that the cecum and colon had a well-formed mesentery, thus rendering volvulus a possible and likely accident. Having closed the incision which had been made for deflation, he determined to fix and to drain the cecum by performing the operation of appendicostomy. In this instance he had to ligate and to divide a portion of the meso-appendix, but took care to leave sufficient blood supply to the portion near the cecum. A stab wound was made at the outer border of the rectus and the appendix was drawn through and fixed by two sutures, its distal end was amputated, and its lumen was dilated with sinus forceps. A gum elastic catheter was then passed through it into the cecum and fixed in position by an encircling ligature. The after-history of the case was uneventful except for some slight suppuration which occurred in the abdominal wound about eight days after operation, evidently due to infection of the incision when the intestine had been opened for deflation.

The after-history of the appendicostomy is of interest. The catheter was left in position for four days, when the bowels were well cleared out by castor oil. From the first a small quantity of fluid feces and a large quantity of intestinal gas escaped through the catheter, thus keeping the intestines free from gaseous distension and rendering the patient's convalescence most satisfactory. As soon as the appendicostomy had completed its mission it became necessary, or at least advisable, to close the little opening. This was done by excising and invaginating the mucous lining of the stump of the appendix. The muscular tube healed promptly.

Intercolonial Medical Journal of Australasia, Melbourne.

March 20.

15 Puerperal Sepsis. A. S. Vallack.
16 *Case of Multiple Polypi of Gastrointestinal Tract, Causing Repeated Intussusception. D. McM. Officer.
17 Diagnosis and Surgical Treatment of Gallstones. G. A. Syme.
18 *Case of Spinal Hydatid. E. J. Connell.
19 Complete Dislocation of the Fourth Cervical Vertebra. J. D. K. Scott.
20 *An Uncommon Dislocation. W. A. James.

16. **Multiple Polypi of Intestine.**—In the case reported by Officer the whole intestinal tract, from the stomach to the rectum, except the ileum, was found to contain tumors, some sessile, some pedunculated, the largest being in the stomach itself near the pylorus. There were 41 tumors altogether.

18. **Spinal Hydatid.**—Connell reports the case of a man, aged 48, who complained of considerable pain in the left groin, worse after work and after going to bed. The veins of the left leg became dilated; the femoral glands were enlarged and tender, and there was diminished tactile sensibility in the region supplied by the upper part of the external cutaneous nerve (second lumbar). All reflexes were normal. There was some wasting of the left buttock and a general loss in weight. For some time the patient was regarded as having some lesion about the brim of the pelvis and groin. He seemed to improve with rest and local applications of aconite, and hot fomentations.

Later there was loss of power in the whole left leg and absence of the reflexes, with the exception of the cremasteric. The condition was then regarded as one of pressure in the spinal canal. The symptoms became gradually worse. A laminectomy was performed. At the base of the under edge of the lamina of the twelfth dorsal, on the left side, was a small erosion through which a cyst escaped. An extradural cyst, of the size of a pigeon's egg, was found beneath the twelfth dorsal and part of the first lumbar arches. On several occasions afterward daughter cysts escaped from the wound. The patient made a complete recovery.

20. **Uncommon Dislocation.**—The case reported by James is one of dislocation of the manubrium sterni from the gladiolus following a severe injury caused by the man being pinned against the wall of a shaft by a mass of earth weighing about half a ton.

Annales de l'Institut Pasteur, Paris.

Last indexed page 1253.

21. (XX, No. 3.) *Final Installment of Report on Yellow Fever by French Commission to Brazil.—Études sur la fièvre jaune. E. Marchoux and P. L. Simond.
22 Negative Action of Radium in Rabies.—De l'action du radium sur le virus rabique. J. Danysz.
23 Toxine produite par l'Aspergillus fumigatus. E. Bodin and L. Gautier.
24 *Sur l'origine des anticorps, précipitines et Agglutinines. R. Kraus and J. Schiffmann.

21. **Infants Responsible for Endemic Yellow Fever.**—This final part of the official report of the French commission to Brazil fills 45 pages and is accompanied by 19 full-page plates showing the pathologic anatomy of yellow fever in various organs. Marchoux and Simond ascribe the perpetuation of yellow fever in endemic foci to the infant population. In a climate which allows the *Stegomyia fasciata* to flourish all the year around by the favorable conditions of temperature and moisture, when yellow fever is introduced for the first time an extensive epidemic results, as no one is immune, causing

many deaths, but leaving the population almost entirely vaccinated and immune to the disease. The few people who escape the epidemic furnish later the isolated, so-called sporadic cases which form the connecting link between one epidemic and another. This contingent would soon be exhausted, however, were it not for the births. A new contingent is being constantly furnished by the newborn infants, and this infant population, constantly renewed, is the principal element which creates and perpetuates endemic yellow fever. On account of the mildness of the disease in children, mentioned in the previous communication, summarized in these columns on page 1243, the disease in the children escapes notice, and this explains why years pass after a violent epidemic without the development of any recognized new cases. The disease is supposed to have died out, when in reality the town is an endemic focus. This is proved by the infection of newly arrived, non-immune aliens, who contract the disease in the severe type which it assumes in the adult. These views are sustained by the experiences with yellow fever at Guadeloupe and elsewhere in the Antilles. A mild disease has long been known there among children which has never been recognized as yellow fever, principally because none of the adults contract it. The adults are all immune to yellow fever and the children are the only ones who take it. As it usually has such an attenuated course in them its true nature has not been recognized. In the endemic foci, therefore, it is the floating foreign population which furnishes the contingent for typical yellow fever. When this floating population is increased by public works, then formidable and deadly epidemics of yellow fever break out, such as was observed at Santos when the new harbor was built. One of the conclusions drawn from the facts presented is that a city in which the adult alien population furnishes the majority of cases of yellow fever is an endemic focus whose permanent inhabitants are all immune. If, on the other hand, a group of aliens escapes the disease when it is epidemic it is safe to conclude that they come originally from some locality where the disease is endemic. This explains the supposed immunity of the blacks. In conclusion Marchoux and Simond protest energetically against the assumption that it is possible for the stegomyia to become infected elsewhere than from man or that the yellow fever virus can affect man without the intermediation of the mosquito. An official or a physician, they say, who is not thoroughly convinced in respect to the exclusive rôle of the mosquito in the transmission of yellow fever is incapable of organizing effectual prophylaxis, and endangers the colonists, the soldiers and other people in his charge. Sanitation of an endemic focus or changes in its population, climate or in other conditions which have rendered it favorable for the stegomyia may exterminate the disease and free the place from being an endemic focus. On the other hand, a place in the mosquito zone where the disease has hitherto appeared only accidentally, as the stegomyia was imported, if conditions favoring the growth of the stegomyia develop, may become an endemic focus at any time. The microscopic pathologic anatomy of yellow fever is that of a generalized fatty degeneration, a diffuse steatosis. The reason why Petropolis is exempt from yellow fever, although only eighty miles from Rio, is its altitude, with the cool nights. The stegomyia may be brought up on the trains, but it is rendered torpid by the coolness and neither lays eggs nor bites. Even infected mosquitoes soon lose their infecting power in the chill of the nights. In Rio Janeiro the present conditions of distribution of the drinking water favor the proliferation of mosquitoes, and a number of remedies are suggested, among them that sea water—which does not attract mosquitoes—should be used for industrial purposes, fountains, etc.; that the trees in the gardens be freed from the parasites of the bromelia genus, and that the ornamental vases on houses, etc., be filled with cement. As the number of places where the mosquitoes are liable to lay their eggs diminishes, it will be easier to keep watch over those that remain. After a few years of work by the sanitary brigades the entire species of *Stegomyia fasciata* can be eradicated from the city. And this is the only certain means of stamping out yellow fever. The general conclusions of the entire research are recapitulated at the close of this final part of the report. The principal points have already been summarized in these columns. See page 917.

24. **Origin of Antibodies.**—The conclusions of research in Metchnikoff's laboratory by Kraus and Schiffmann are to the effect that the bactericidal antibodies are generated in the spleen, bone marrow and lymphatic ganglia. The precipitins and the agglutinins, on the other hand, are generated in the vascular system.

Annales des Mal. des Org. Gén.-Urin., Paris.

Last indexed page 390.

25 (XXIII, No. 23.) L'éducation clinique. F. Guyon.
26 (No. 24.) Les propagations ganglionnaires à distance dans les tumeurs de la vessie (of bladder). Grandjean.
27 Emploi de l'oxycyanure de mercure dans les voies urinaires. J. M. Bartrina and B. Oliver (Barcelona).
28 Prostatectomie appliquée au traitement de l'hypertrophie de la prostate. E. Loumleu (Bordeaux).
29 *Cathétérisme urétéral. L. Suarez (Buenos Ayres).
30 (XXIV, No. 1.) *Forme particulière de tuberculose primitive du rein: Le rein polykystique tuberculeux (kidney). F. Curtis and V. Carlier (Lille).
31 (No. 2.) *Etude du diagnostic de la tuberculose de l'appareil urinaire; cytologie urinaire. S. Colombino (Turin).
32 Des cystoscopes à air et à eau. G. Whiteside (Portland).
33 Précocité et impuissance sexuelle (impotence). C. Féré.
34 Ablation d'un épithélioma du testicule avec toute la gaine des vaisseaux spermatiques. P. Mauclaire.
35 (Nos. 3-4.) Tuberculose de l'urétère et du bassinet (pathanatomic study of tuberculosis of ureter and pelvis). N. Hallé and B. Motz.
36 Nouveau séparateur intravésical des urines. R. Dalla Vedova (Rome).
37 Cas de néphrite lithiasique polykystique; anurie; décapsulation rénale. M. Patel.
38 *Les cylindres urinaires fibrineux. G. Padoa.
39 (No. 5.) *Les ruptures de l'urèthre chez l'enfant. A. Broca.
40 Traitement des suppurations chroniques prostatiques et périprostatiques. E. Desnos.
41 La stéréocystophotographie. S. Jacoby (Berlin).
42 La stéréocystoscopie. Id.
43 Abcès de la prostate et du rein. Périnéphrite suppurée causée par un furoncle. Nicolich.
44 Nouveau méthode de massage de la prostate (vibratory massage). J. de Sard.

29. **To Facilitate Catheterization of Ureter.**—Suarez cuts off the end of a No. 18 sound and slips it over the catheter in the ureter, after withdrawal of the cystoscope, until the cut-off tip of the sound enters the bladder. The outer end of the ureter catheter is kept at a higher level than the outer end of the bladder sound. The urine from the bladder flows out through the latter, and the ureter catheter can be withdrawn through it.

30. **Polycystic Tuberculous Affection of Kidney.**—Curtis and Carlier describe a case of this kind. The affection was distinguished by its chronic and protracted character. The anatomic features were the hypertrophy of the kidney and the multiplicity of the cysts, suggesting the congenital polycystic condition.

31. **Diagnostic Cytologic Findings in Tuberculous Urine.**—Colombino calls attention to the changes in the leucocytes which he has found exclusively in cases of tuberculous processes in the urinary apparatus. The microscope shows that the leucocytes are longer than usual and grooved, and that the outline is angular instead of round. The protoplasmic outline is very irregular and looks as if the envelope had burst. When such leucocytes are found mixed with red corpuscles the diagnosis of tuberculosis is almost certain. The nuclei may be found almost entirely detached in some of the leucocytes, and vacuoles can be seen in the protoplasm. He gives the details of 20 cases with 13 non-tuberculous cases for comparison.

38. **Fibrinous Tube Casts in Urine.**—Padoa describes casts formed by disintegration of red corpuscles in the tubuli. Their presence indicates preceding extravasation of blood.

39. **Rupture of Child's Urethra.**—Broca reports a case and discusses the indications. Immediate suture is required, but even the most careful technic does not insure against stricture later. He has had cases completely successful and others in which the patients returned with stricture. Speedy and very serious stricture may develop after apparently trivial injury without perineal tumor and with very little dysuria and a few drops of blood.

Revue de Chirurgie, Paris.

Last indexed page 1145.

45 (XXVI, No. 3.) *Massage of Heart.—Le massage du cœur chez l'homme, en particulier dans la syncope chloroformique. C. Lenormant.

46 *Des gros kystes de l'ouraque (of urachus). X. Delore and G. Cotte.
47 Cas d'actinomycose cervico-cranienne. F. Terrier and C. Dujarier.
48 *Les tumeurs mixtes du sein (of mamma). P. Lecène.
49 Uretérocystostomie. H. Pons.
50 *Des lipomes osteopériostiques. Schwartz and Chevrier. (Commenced in No. 1.)
51 *Le traitement rational des luxations congénitales de la hanche (of hip joint). P. Le Damany (Rennes). (Commenced in No. 2.)
52 (No. 4.) Les tumeurs fibro-kystiques de l'utérus. G. Piquand. (Commenced in No. 3.)

45. **Massage of the Heart.**—Le Normant's study of the 25 cases of direct massage of the heart which have been reported shows that in 4 cases the heart-beat was definitely restored, but the contractions ceased when the massage was discontinued, either at once or soon after. In the 8 positive cases only 4 of the patients were definitely revived. In the other 4 the heart continued to contract, apparently normally, for from five to twenty-four hours, and then gradually became quiescent again. The 4 cases of definite survival include Cohen's case, published in THE JOURNAL for November 7, 1903, besides Lane's, Keen's and Sencert's cases, 1902 to 1905. The 4 cases of survival for a few hours includes one personally observed by Le Normant and not published before. The final conclusions of his monograph are that massage of the heart is an easy maneuver, simple and free from danger, if done through an incision in the abdomen and through the diaphragm without opening the latter. It is liable to prove successful in all cases of sudden arrest of the heart action, especially in chloroform syncope. Under these conditions it has resulted in temporary survival in 4 instances, with 1 permanent resuscitation, not to mention the dubious cases of Lane, Cohen and Igelsrud, in which the resuscitation might have been due to other factors. As adjuvants he recommends artificial respiration and possibly also centripetal intra-arterial injections of serum to raise the arterial tension. He gives the details of all the 25 cases. In Sencert's favorable case, after eight minutes of artificial respiration, etc., without response, he introduced his hand through the laparotomy wound and applied rhythmic massage to the heart, which could be felt empty and flaccid. After five minutes of massage the heart could be felt growing hard and larger, and a spontaneous contraction was observed two minutes later. The patient was an emaciated man of 51 undergoing a second operation for stone in the common bile duct. He felt no ill effects later from what he had been through, except slight occasional pains in the intercostal region.

46. **Cysts of the Urachus.**—Delore and Cotte publish a case of a very large cyst in the urachus in a young woman. It was operated on under the diagnosis of tuberculous peritonitis with ascites. It had been about a year in developing and contained 8 or 10 liters of fluid. The walls were about 3 or 4 mm. thick and the location of the cyst was mostly intraperitoneal. Eight similar cases are on record. The extirpation of the cyst was not a difficult matter. The discovery of a suprapubic and subperitoneal pedicle was the only means of differentiation in some cases, and then only during the operation. When the cyst was merely punctured the fluid promptly reaccumulated and a persisting fistula frequently followed. In one instance the cyst was tapped three times in nine months, and 18, 17 and 6 liters of fluid were withdrawn, and 50 were found at the autopsy.

48. **Mixed Tumors of the Breast.**—Lecène reports 2 cases in which a tumor removed from the breast of women 25 and 54 years old presented characteristics of sarcoma and also of cartilaginous and bone elements. The tumors were evidently, he thinks, of teratoid origin, due to embryonal inclusion of ectodermic or mesenchymatous elements. In evolution, in the physical signs and prognostic significance they resemble ordinary encapsulated tumors of the breast (adeno-fibroma, cystic adeno-sarcoma). The cases of cholesteatoma of the breast probably come also within this category.

50. **Osteo-periostic Lipomas.**—Schwartz and Chevrier advocate radical extirpation for these lipomas when the growth is rapid, but add that intervention may be postponed when the growth is very slow and gradual. They have collected 63 cases of these tumors at various points, including a number from their own experience. Some were evidently of congenital and others of acquired origin. They may have the most diverse sites, sometimes remote from the centers of complementary ossification and the epiphyseal cartilages. The lipoma may be encapsulated or diffuse, and may have contingent connection with organs, muscles, vessels, nerves or the large joints. In only one of the cases reported was exostosis observed in connection with the osteo-periostic growth.

51. **Rational Treatment of Congenital Luxation of Hip Joint.**—Le Damany's extensive monograph fills 76 pages and is accompanied by 44 illustrations. He affirms that anthropologic congenital luxation of the hip joint does not occur before birth, but becomes established during the course of the first year. It may be prevented, and this prophylaxis is the ideal treatment. The cure of the dislocation is simpler and easier the younger the child, and it should be commenced early, although the care for cleanliness requires constant supervision, and fixation of the reduction is a little more difficult and tedious in the very young than after the age of 3. He describes and illustrates his technic in detail. He commences treatment by the fifteenth or the eighteenth month, when radiograms have made the diagnosis certain. In reduction he follows the modified Paci-Lorenz technic under an anesthetic. A plaster cast is then applied, holding the femur in abduction of from 80 to 90 degrees with flexion of the thigh, sometimes at a right angle. This cast is worn for two or three months, when it is substituted by correcting apparatus. This holds the limb in adjustable abduction, which can be gradually diminished from 90 to 60 degrees, or down to zero. The apparatus consists of a plaster corset supported by the iliac crests with a projecting metal arm, parallel to the thigh, fastened to a bracelet worn above the knee, with chains and straps to regulate the position of the femur. The child is able to walk, even when the apparatus is applied to both hip joints at once. In conclusion he describes the technic for various exceptional conditions liable to be encountered. His aim is to correct not only the luxation of the hip joint, but also the causal malformation as well as the secondary deformity. He insists that congenital luxation is always perfectly curable both from the anatomic and the functional points of view. He intends publishing soon his clinical experiences, which have been most gratifying.

Revue de Gynécologie, Pozzi's, Paris.

Last indexed page 758.

53 (X, No. 1.) *La sarcome du vagin chez l'enfant (vaginal sarcoma in children). M. Rollin.
54 Du méat hypogastrique et de l'épisiorrhaphie appliquée au traitement de certaines Fistules uréthro-vesico-vaginales. Chénieux (Limoges).
55 *Opérations sur la portion rétropancréatique du canal choledoque après mobilisation du duodénum. L. Sencert (Nancy).
56 *Le volvulus du caecum. Etude clinique et therapeutique. P. Cavaillon and E. Delvoye (Lyons).

53. **Sarcoma in Vagina in Childhood.**—Rollin gives summaries of 12 cases of sarcoma developing in the vagina of girls under 8. In some the tumor was noticed soon after birth. The first symptom was generally bleeding from the vagina, but sometimes there were pains and disturbances in urination and defecation, and occasionally the protrusion of the tumor was the first manifestation of its existence. The course of these tumors in children is essentially rapid. Death is soon entailed by the local extension of the tumor and the resulting cachexia. Metastases at a distance are rare. The duration varies from one to eighteen months. The prognosis is grave, as the diagnosis is generally not made until too late for relief from operative measures. Recurrence is the rule, and with exception of Schuchardt's and Hollaender's successful cases, the children soon succumbed to recurrence. Tumors in the vagina in childhood are almost always sarcomas. Any symptoms calling attention to the genital sphere in children should be regarded with suspicion. Physical examination is the only means of detecting the neoplasm. In children the sarcoma usually develops as a solitary bunch at first, assuming the bunch-of-grapes form later. The structure of the peripheral portions may differ from that of the base of the tumor. It may be mistaken for a harmless growth on this account.

55. **Access to the Common Bile Duct.**—Sencert gives an illustrated description of his method of opening up the common

bile duct. He calls it the retroduodenal route with mobilization of the second part of the duodenum. Its advantages are its great simplicity, the ease with which it can be done in all cases in which the region beneath the liver is not altered by peritoneal neoformations, the possibility of extraperitoneal operating with subperitoneal drainage and "peritonization" similar to that possible in the small pelvis. It is a less serious operation than exploratory duodenotomy followed by transduodenal choledochotomy. The technic has been successfully applied on 6 patients to date.

56. **Volvulus of Cecum.**—A case personally observed is described in detail and 39 others previously published are reviewed. Early reduction of the volvulus was successful in 74 per cent. of these cases. Previous statistics have reported cures in 50, 55 or 67 per cent. after operative intervention and a mortality of 100 per cent. without surgery. The earlier the operation the better the prospects. The majority of cases have been observed in Finland (79), Germany (50) and England (57). Only 4 or 5 cases are known in France, and none in the southern countries. These differences are evidently due to the lighter diet in the South, he thinks. Sargent's patients were mostly from 20 to 40 years old, but one was 9 days old; another 10 months; 3, 5 years, and 8 from 10 to 20 years old. The symptoms are those of recurring colic of the cecum, aggravated by lying on the side. The patients sometimes learn to assume an attitude that will favor spontaneous reduction of the volvulus. The protrusion of the cecum may simulate a floating kidney, but the gurgling sound produced by palpation differentiates it. The volvulus occurs, as a rule, in healthy persons, or there may have been a history of repeated colics. The onset of the pain is sudden, and it is not localized to such an extent as in appendicitis. The first phase is that of cecal colic of unusual severity; the second phase is a remission of the pains after two or three days, and the third phase is that of complete occlusion. The deceptive remission for one or two days frequently makes the surgeon hesitate. Faltin cites one case in which the course was more rapid than the ordinary five to eight days; the cecum became gangrenous and perforated in 55 hours. The principal diagnostic features are the sudden onset, the localized meteorism, toward which the peristaltic waves are directed, the absence of temperature, the arrest of feces and flatus, and the false remission which follows the tempestuous onset. Spontaneous reduction is favored by lying on the side, and by massage of the abdomen. Some patients have felt spontaneous reduction follow a sudden violent effort to turn over in bed. In a few instances relief was obtained from purgatives and injections. If reduction has not been accomplished by the second or third day, surgical intervention is necessary. Resection is preferable, for reasons enumerated, uniting the ileum with the colon with side-to-side anastomosis, and drainage through the lumbar region, the vagina or rectum.

Mitteilungen aus den Grenzgebieten der Medizin und Chirurgie, Jena.

Last indexed, page 994.

57 (XVI, No. 1.) *Die chirurgische Therapie des Magen-Ulcus. A. von Eiselsberg.
58 Ueber Hofrat Nothnagel's zweite Hypothese der Darmkolikschmerzen (intestinal colic). K. G. Lennander.
59 Leibschmerzen, ein Versuch, einige von ihnen zu erklären (causes of pain in abdomen). Id.
60 *Zur Frage der Kryoskopie und ihrer Technik. A. Neudörfer.
61 Ueber kongenitale vollkommene Synostose der Wirbelssaule in Verbindung mit Wachstumsanomalien der Extremitätenknochen (rigid spine, etc.). W. Voltz.
62 *Zur Frage des Staphylokokken-Erysipelas. G. Jochmann.
63 *Fall von Tendinofasciitis calcarea rheumatica. M. Neuwirth.
64 *Ueber die Aetiologie der Appendicitis. P. Klemm.
65 *Sanduhrmagen (hour-glass stomach). B. G. A. Moynihan (Leeds).

57. **Surgical Treatment of Gastric Ulcer.**—The article by von Eiselsberg, which opens the sixteenth volume of the "Communications from the Borderland of Medicine and Surgery," was read as one of the main addresses at the recent International Congress of Surgery. He reviews his extensive experience and advocates immediate laparotomy in case of perforation. In case of severe gastric hemorrhage he tries internal measures first. Among those measures found useful are rinsing with hot water, solutions of iron and 1 per thousand silver nitrate. He gives his patients a 10 per cent. solution of gelatin to drink and injects subcutaneously up to 6 gm. of a 2 per cent. solution of gelatin after repeated sterilization. Cautious evacuation of the stomach is advisable on account of the shock. Surgical interference is necessary in case of recurring severe hemorrhages. He has observed cases of perforation and also of fatal hemorrhage occurring tardily after skillful resection of the stomach. Consequently he now advocates less extensive operations as a rule. He has witnessed subsidence of large areas of induration of the stomach wall and serious hemorrhages arrested as if by magic after gastroenterostomy. In case of duodenal stenosis or ulcer it is the only operation, and the results are generally brilliant in case of stenosis of the pylorus from an ulcer. Jejunostomy can be done on the weakest patient and with local anesthesia is scarcely at all dangerous. He considers it the standard operation in case of hour-glass stomach with a very small cardiac portion, when the stenosis does not permit gastroanastomosis. Also in case of contraction of the stomach as result of multiple ulcerations or of ulcerative gastritis and perigastritis, and plastic linitis. It has also rendered him good service in some cases of severe hemorrhage, in which he refrained from other intervention, even from any examination of the stomach. It is also very useful in case of the action of a caustic on both esophagus and stomach, and it allows the feeding of the patient after suturing a perforation in the stomach. In this latter capacity he regards it as a valuable aid in internal medication, as it leaves the stomach entirely at rest while allowing much more abundant feeding. As such a fistula is generally continent, and as it soon heals spontaneously after withdrawal of the catheter without further operation, the inconvenience from it is trifling. He is convinced that the cases now accepted as spasm of the pylorus will be found to have some ulcerative process at bottom. He mentions that his pupil, Lempp, is now engaged in research which may ultimately lead to the production of a practical gastroscope. Lempp is trying to produce an instrument with which, through a small opening into the stomach, its interior can be safely and thoroughly inspected. Retrocolic posterior gastroenterostomy is the best means of treating obstinate spasm of the pylorus. Plastic operations for this condition give only transient results. In only a single instance has he had peptic ulcer develop after gastroenterostomy.

60. **Cryoscopy and Its Technic.**—Neudörfer states that Kümmell was the first to point out the importance of cryoscopy as a diagnostic test of kidney functioning. His later experience has only confirmed its value more and more. He has never had a mishap in the 160 cases in which he has performed nephrectomy since its introduction, and regards it as a fine test of the total work done by the kidneys. The Beckmann apparatus is used. The glass cylinder and platinum stirring rod are rinsed again before using with boiled distilled water and dried by warming the glass tube. A trocar needle is inserted in a congested vein in the arm and the blood drawn directly into the glass cylinder. It is slowly stirred and the fibrin clings to the platinum stirrer. The fibrin generally does not disturb the freezing point, but still it is better to remove it; this is done with sterile gauze. The blood is then placed in the freezing mixture. The freezing point of boiled distilled water is determined anew each time. Heidenhain has demonstrated that the zero point may vary even when the fluid is at rest. Before each measurement the thermometer is rinsed with distilled water and wiped dry with gauze. He usually takes two measurements and records the average as the true freezing point. Thermometers with fixed zero points are not advisable as the actual freezing point varies with external conditions, the temperature of the room, etc., consequently he always determines the exact freezing point anew for each test. He uses a freezing mixture of minus 4 C. The ice must be well broken up and the vessel must be about a third full of water, as otherwise the freezing mixture does not press close against the inner vessel, which is indispensable. Another important technical point is that the blood and the water are cooled before attempting to determine the freezing point. A grain of salt or rinsing the tube in alcohol is a frequent source of error unless guarded

against. In conclusion Neudörfer tabulates a number of cases to show the value of information derived from cryoscopy in various cases; the findings were confirmed by the later course of the affections. He also tabulates for comparison nearly 50 cases of heart disease or pneumonia, without kidney disease, the freezing point of the blood ranging in all merely from minus 53 to minus 57 C. In 17 cases of kidney affections tabulated the range of the freezing point was from minus 58 to minus 79 C. in all but 2, in whom it was minus 56. The trouble in this latter group proved to be due merely to enlargement of the prostate. One patient with interstitial nephritis had a freezing point of minus 56 in February, minus 58 in April, and minus 60 in June, the progressive course of his kidney trouble being reflected in the freezing point of his blood. No influence from cyanosis on the freezing point could be detected, nor from age, pregnancy, nor the presence of a tumor. His youngest patient was a child of 8, his oldest a man of 81; in both the normal freezing point was the same, minus 56 C. It was also within the normal range in 10 cases of large abdominal tumors, cancer or myoma, and also in 10 cases of pregnancy at term.

62. **Staphylococcus Erysipelas.**—Jochmann reports the case of a letter carrier, 38 years old, who complained one morning of pains in the nose, and erysipelas developed from the pustule which soon appeared. In two days the patient was delirious and he died on the sixth day after the first symptoms, with indications of general sepsis. The *Staphylococcus pyogenes aureus* was cultivated in pure cultures from the blood during life (500 colonies in 10 c.c. of blood), and from the tissues after death. No streptococci were discovered at any time.

63. **Rheumatic Calcareous Tendon and Fascia Inflammation.**—Neuwirth gives an illustrated description of a case of primary necrosis in the tendons and aponeuroses over the entire body, with subsequent deposits of lime, mostly in the neighborhood of the joints. The muscles were atrophied and anemia developed, probably the result of gastrointestinal disturbances. Pneumonia or endocarditis were noted as complications in the few similar cases on record. The course is a prolonged one with frequent remissions, but tends inevitably to final cachexia. The affection is differentiated from gout by the lack of restriction to certain points, the multiple involvement of the joints, the chemical composition of the concrements, the microscopic findings and the shadows cast by the Roentgen rays, which differ from the findings in gout. In the case reported the salicylates seemed to benefit.

64. **Etiology of Appendicitis.**—Klemm has become convinced that appendicitis should be regarded as a mycosis of the lymphatic apparatus of the appendix. It does not differ in any respect from mycosis of other lymphatic organs. It may be the result of the action of various bacteria, but the colon bacillus is generally responsible.

65. **Hourglass Stomach.**—Moynihan has had occasion to operate in 23 cases of hourglass stomach. He encountered one case in which cicatricial contraction of the stomach after ulcers had caused its separation into three sacs and another in which there were four sacs. He describes his cases in detail, with the indications for which he operated and his technic. The results were very gratifying, except with the 2 patients who presented evidences of malignant disease.

Monatsschrift f. Geb. u. Gynäkologie, Berlin.

Last indexed page 996.

66 (XXII, No. 5.) Zur Cervix-Frage (the cervix question). L. Aschoff.
67 Zur Anatomie der intraligamentären Harnblase (bladder). K. Natanson and A. Zinner.
68 Zur Morphologie des Kolostrums und zur Technik seiner Untersuchung. Wederhake.
69 Ueber tödliche intraperitoneale Blutungen bei Uterus-Myom (fatal hemorrhages). A. Stein. One case.
70 *Zur plastischen Verwendung des Uterus (Wertheim) bei Operationen grosser Genital-Prolapse. H. Fuchs.
71 *Zur Kenntnis der weiblichen Genital-Tuberkulose. O. Nebesky.
72 Die Eierstockswund-Heilung (healing of wounds in ovaries). G. Di Cristina.
73 Experimenteller Beitrag zur Aetiologie der Ovarial-Embryome und Adenome. G. L. Basso.
74 *Die konservative Behandlung der entzündlichen Adnex-Erkrankungen (inflammatory processes in adnexa). K. Fett.
75 (No. 6.) Ueber gleichzeitige Extra- und Intrauterin Gravidität. W. Weibel.
76 Ueber 2 Fälle von vorgeschrittener Extrauterin-Gravidität. T. Haagn.
77 *Ueber spontane puerperale Gangrän beider Extremitäten. E. Fraenkel.
78 Fall von Cystoma ovarii multiloculare pseudomucinosum mit breiter Perforation in Blase und Rectum und mit fistulösen Durchbrüchen in Ileum und Flexura sigmoidea. H. Martin.
79 Erfahrungen mit der Morphium-Skopolamin-Narkose bei gynäkologischen Operationen. K. Voigt.
80 (XXIII, No. 1.) *Beziehungen der funktionellen Neurosen, spez. der Hysterie zu den Erkrankungen der weiblichen Genital-Organe. E. Meyer.
81 Ein Kaiserschnitt welcher gemacht wurde, ein Kaiserschnitt der nicht gemacht wurde, und ein Kaiserschnitt welcher hatte gemacht werden sollen (experiences with Cesarean section in a dwarf and others). F. v. Neugebauer.
82 Campaign Against Uterine Cancer.—Der Stand der Bekämpfung des Gebärmutterkrebses. E. Opitz.
83 *Funktionelle Nieren-Diagnostik (of kidneys). F. Kermauner.
84 Statistische und anatomische Ergebnisse bei der Freund-Wertheimsche Radikal-Operation des Uterus-Karzinom. R. Schindler.

70. **Plastic Utilization of Uterus for Extensive Prolapse of the Genitalia.**—Fuchs reports 39 patients operated on by Wertheim's technic, using the uterus to make a new floor for the pelvis, as it were. It proved successful even in cases of old prolapse that had previously recurred, despite all kinds of operative intervention. Twenty-one of the 39 patients have been examined recently, and the results have proved extremely satisfactory, except in one case, in which the prolapse recurred.

71. **Tuberculosis of Female Genitals.**—The case related by Nebesky confirms the possibility of permanent cure of clinically isolated tuberculosis of the female genitals, treated by radical removal of all the organs which appear to be affected.

74. **Conservative Treatment of Adnexia.**—In 38 cases of inflammatory processes in the adnexa, Fett used conservative medical measures only, and in 8 operative measures. From the results observed and those recorded by others he has become an advocate of conservative treatment of inflammatory conditions in the adnexa under all circumstances. In the acute stage they should be treated expectantly, and in the chronic stage with the aid of measures to promote absorption. The treatment may require several months, but with few exceptions full working capacity is regained, the results comparing favorably with the best after-operative intervention. Restitution is so complete that pregnancy occurs normally afterward. In case of impending perforation peritonitis, laparotomy is required, and abdominal removal of the adnexa is also justified by the failure of a systematic course of treatment. Even then the ovaries should be left if sound and functioning. Colpotomy is indicated only in case of extensive suppuration and prolonged fever, requiring incision and drainage. The displacements of the uterus which frequently follow the processes in the adnexa may require correction when the conservative treatment has accomplished its purpose.

77. **Puerperal Gangrene.**—Fraenkel's patient exhibited isolated gangrene of both arms in conjunction with endocarditis.

80. **Relations Between Functional Neuroses and Genital Affections.**—Meyer has noticed that nervous disturbances are rarely encountered in severe affections of the genital organs. On the other hand, gynecologic affections are frequently merely the localization in the genital sphere of some general neurosis. Treatment based on this fact is alone liable to be successful in such cases.

83. **Functional Kidney Tests.** Kermauner concludes from his study of the subject in the literature and from personal experience that none of the functional tests of the kidney yet presented are accurate. Reliable information can be obtained only by combining palpation, the history of the case, examination of the painful points and of the ureter reflexes with cystoscopy and radiography in case of suspicion of stones. Physical, chemical and microscopic tests should be made, with determination of the freezing point and of the nitrogen, the phloridzin test and chromocystoscopy, determination of the urea, nitrogen, salt and electric conductibility.

Muenchener medizinische Wochenschrift.

86 (LIII, No. 10.) *Water as Enemy of Roentgen Photography.—Das Wasser als Feind der Röntgenaufnahme. F. Lichtenstein.
87 Neuere Reaktionen auf Azetessigsaure (aceto-acetic acid). E. Riegler.
88 Ueber Aktinomykose des Kehlkopfes und des Kopfnickers (of larynx, etc.). R. Hoffmann.

89 *Zur Kenntnis der tuberkulösen Erkrankung des Oesophagus. R. Kümmell.
90 *Test Breakfast or Test Meal.—Probefrühstuck oder Probemittagessen. K. Dörner.
91 *Zur Kenntnis der Tetanie intestinalen Ursprungs (origin). K. Quosig.
92 Typhusbazillus und Bazillus Faecalis alcaligenes. Conradi.
93 Ueber traumatische Pupillenstarre (immovability of pupils). G. Dreyfus.
94 Infant Consultations.—Ueber die Errichtung von Beratungsstellen für mütter von Säuglingen in München. K. Oppenheimer.

86. Water as Obstacle to Radiography.—Lichtenstein gives diagrams and relates experiences which suggest that the presence of fluids has a disturbing effect on radiography. Not the composition of kidney stones, but the amount of fluid present in the kidney is the criterion for successful radiograms of kidney stones. The presence of fluid is the reason why radiography of the pregnant uterus is so unsatisfactory. Stones in the biliary passages generally cast stronger shadows than those in the gall-bladder, mainly because they are not surrounded by so much fluid.

89. Tuberculosis of the Esophagus.—In Kümmell's case nearly four-fifths of the esophagus was occupied by a tuberculous ulceration. No symptoms had been noted pointing to an affection of the esophagus. The patient was a man of 52, alcoholic, with advanced pulmonary tuberculosis.

90. Test Breakfast or Test Dinner.—Dörner gives the comparative findings after the test breakfast and the test dinner, his experience being that only the latter is able to indicate the actual functional capacity of the stomach. The organ may be able to take care of the breakfast and the findings will be approximately normal, when the test dinner shows that it is far from being equal to taking care of the more elaborate meal.

91. Tetany of Intestinal Origin.—A neuropathic man of 46 with achylia and normal gastric motility presented evidences of tetany. The impossibility of peptotoxin formation excluded the stomach as the source of the trouble. There was no diarrhea, and consequently the tetany could not be attributed to excessive loss of fluids. The intestinal digestion was much disturbed, and he attributes the tetany to the morbid conditions in the intestines and consequent autointoxication.

Virchow's Archiv, Berlin.

Last indexed page 1405.

95 (CLXXXIV, No. 1.) Ueber den Weg der Tuberkel-Bazillen von der Mund- und Rachen-Höhle zu den Lungen, mit bes. Berücksichtigung der Verhältnisse beim Kinde (route of infection). H. Beitzke (Berlin).
96 Die Athyreosis (disturbances in growth of bones). T. Dieterle Bas[illegible]).
97 Healing of Cartilage.—Ueber Knorpelheilung nach aseptischen Verletzungen am hyalinen, von Perichondrium uberzogenen, fertigen Knorpel. R. Malatesta (Padua).
98 Ueber lokales und allgemeines Amyloid. Edens.
99 Small-celled Infiltration of the Skin.—Die klein-zellige Infiltration der Haut. E. Gebert.
100 Ueber die Malakoplakie der Harnblase (Hansemann) (of bladder). S. Minelli (Strassburg).
101 Ueber kavernöse Phlebektasien des Verdauungstraktus (of digestive tract). H. Bennecke (Marburg).

Grèce Médicale, Syra, Greece.

Last indexed, page 1571.

102 (VII, Nos. 13-14.) Le paludisme en Grèce. La ligue contre le paludisme.
103 (Nos. 15-16.) Cas de disposition particulière des fibres à myeline de la retine. G. F. Cosmettatos.
104 (Nos. 17-22.) *La tuberculose pulmonaire en Grèce. P. J. Rondopoulo.
105 (Nos. 23-24.) Autoclave portatif de campagne (portable autoclave). Macris.
106 (VIII, Nos. 1-2.) Urologie de la fièvre hemoglobinurique bilieuse. S. P. Kanellis.
107 (Nos. 3-6.) *Nouveau traitement de la blennorrhagie chronique. Le Dynamo-Injecteur. G. Filaretopoulo (Athens).
108 Traitement des phlegmons diffus chez l'enfant. Pansement à l'éther sulfurique (ether dressings). J. N. Georgiades.

104. Tuberculosis in Greece.—The proportion of deaths due to tuberculosis in Greece is about as 1 to 9 in comparison to the total mortality, according to the figures for the twelve largest towns in the land. Dust is extremely prevalent, but the mild climate and the almost constant sunshine counteract its effects, so that Greece does not suffer from tuberculosis as much as some other countries.

107. Dynamo Injector for Treatment of Chronic Gonorrhea.—Filaretopoulo has devised an instrument which, he thinks, is free from the faults of the present technics. It consists of a curved sound dilator in two halves, the outer side of each part rounding and the inner flat, so that the whole, when closed, looks like a simple sound. By turning a thumbscrew in the handle the tips separate to any desired distance, and by turning and reversing the thumbscrew the alternate spreading and closing of the tips enables the interior of the urethra to be energetically massaged at any point desired. One of the branches is made hollow, with four large openings at the tip. He uses an astringent and antiseptic salve with lanolin base for local application. The hollow branch of the injector is filled with the salve from a compressible tube, and it is forced out through the openings in the tip by a piston arrangement. The salve can thus be applied at the exact point needed and massaged into the tissues. The use of this instrument saves much time, all the procedures being done at once and without the least pain. A further advantage is that the topical applications, being in the form of a salve, exert their action much longer than when fluids are used. He has thus cured in two sittings, he states, patients who had been treated in vain for years by other measures. Some of the salve is still evident in the urethra three days after its application. The article is illustrated.

Books Received

Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

PRACTICAL MEDICINE SERIES, Comprising Ten Volumes on the Year's Progress in Medicine and Surgery. By G. P. Head, M.D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School, in two volumes. Vol. I on General Medicine, edited by F. Billings, M.S., M.D., Head of Medical Department and Dean of the Faculty of Rush Medical College, Chicago, and J. H. Salisbury, A.M., M.D., Professor of Medicine, Chicago Clinical School. Vol. II on General Surgery, edited by J. B. Murphy, A.M., M.D., LL.D., Professor of Surgery in Rush Medical College. Cloth. Pp. 369 and 583. Price, Vol. I, $1.25; Vol. II, $2.00. Chicago: The Year-Book Publishers, 1906.

PRACTICE OF GYNECOLOGY, In Original Contributions, by American Authors. Edited by J. Wesley Boyée, M.D., Professor of Gynecology, George Washington University, Washington, D.C. Illustrated with 382 Engravings and 60 full-page Plates. Cloth. Pp. 836. Price, $6.00 net. Philadelphia: Lea Brothers & Co., 1906.

GRUNDRISS der Orthopaedischen Chirurgie. Fuer Praktische Aerzte und Studierende. von Dr. Max David. Specialarzt f. Orthopaedische Chirurgie in Berlin. Mit 184 Abbildungen. Zweite, Wesentlich Vermehrte und Verbesserte Auflage. Paper. Pp. 240. Price, 6 marks. Berlin: Verlag Von S. Karger, 1906.

MANUAL OF DISEASES OF THE EAR, NOSE AND THROAT. By J. J. Kyle, B.S., M.D., Clinical Professor of Otology, Rhinology and Laryngology in the Medical College of Indiana, etc., with 160 illustrations. Flexible leather. Pp. 595. Price, $3.00. Philadelphia: P. Blakiston's Son & Co., 1906.

THE NATURE AND TREATMENT OF CANCER (Some Methods of Hypodermic Medication in the Treatment of Inoperable Cancer). By J. A. Shaw-Mackenzie, M.D., Lond. Third Edition, revised and enlarged. Cloth. Pp. 99. Price, 2s. 6d. net. London: Baillière, Tindall & Co., 1906.

THE MORPHOLOGY OF NORMAL AND PATHOLOGICAL BLOOD. By G. A. Buckmaster, D.M., University College, London, formerly Radcliffe Fellow, Magdalen College, Oxford. Cloth. Pp. 244. Price, $3.00. Philadelphia: P. Blakiston's Son & Co., 1906.

PHARMACOPEIA OF THE EVELINA HOSPITAL FOR SICK CHILDREN, Southwark. Third Edition. Copies may be obtained from the secretary or the dispenser. Cloth. Pp. 62. Price, 60c. Philadelphia: P. Blakiston's Son & Co., 1906.

SIXTY-SEVENTH ANNUAL REPORT OF THE COLUMBUS STATE HOSPITAL to the Governor of the State of Ohio, for the Fiscal Year Ending November 15, 1905. Paper. Pp. 92. Columbus, Ohio: Fred J. Heer, 1906.

TRANSACTIONS OF THE AMERICAN ROENTGEN RAY SOCIETY, Sixth Annual Meeting, Johns Hopkins Hospital, Baltimore, Md., Sept. 28-30, 1905. Cloth. Pp. 224. Pittsburg, Pa.: Press Murdoch, Kerr & Co., 1905.

OFTALMOLOGIA CLINICA. Estadistica de 8,000 Enfermos. Tercera Serie. Con 158 Grabados en el Texto y 35 Planchas. Por El Dr. Enrique Lopez. Paper. Pp. 229. Havana: Imprenta Avisador Comercial, 1906.

THE SUBCONSCIOUS. By J. Jastrow, Professor of Psychology in the University of Wisconsin. Cloth. Pp. 549. Price, $2.50 net. Boston and New York: Houghton, Mifflin & Co., 1906.

REPORT OF THE DEPARTMENT OF HEALTH OF THE ISTHMIAN CANAL COMMISSION for the Month of March, 1906. Paper. Pp. 54. Washington: Government Printing Office, 1906.

FERIDAS E RUPTURAS TRAUMATICAS DE PANCREAS. Por Reynaldo Dos Santos. Chirurgiao dos hospitaes civis. Paper. Pp. 45. Lisbon.

SEVENTEENTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF FLORIDA, Jacksonville, Florida, March 6, 1906. Paper. Pp. 271.